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By- Hutchinson, Joseph C.
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The high school language laboratory is approached from the standpoint of (1) planning for the laboratory facilities, (2) the function of equipment in relation to student learning activities, and (3) operation of the laboratory facilities. Considered in the section on planning are laboratory rationale, place in the school program, methods and materials, and equipment evaluation and selection. The function of the laboratory is diagramed, with specific attention given to headphones, microphones, recorders, and other equipment. Operational factors (scheduling, operational and administrative duties, teaching techniques, testing, and laboratory use) are discussed. There are explanations of technical language laboratory terminology and glossaries of related expressions and terms in French, German, Italian, Russian, and Spanish. A list of useful references is also included. (AF)

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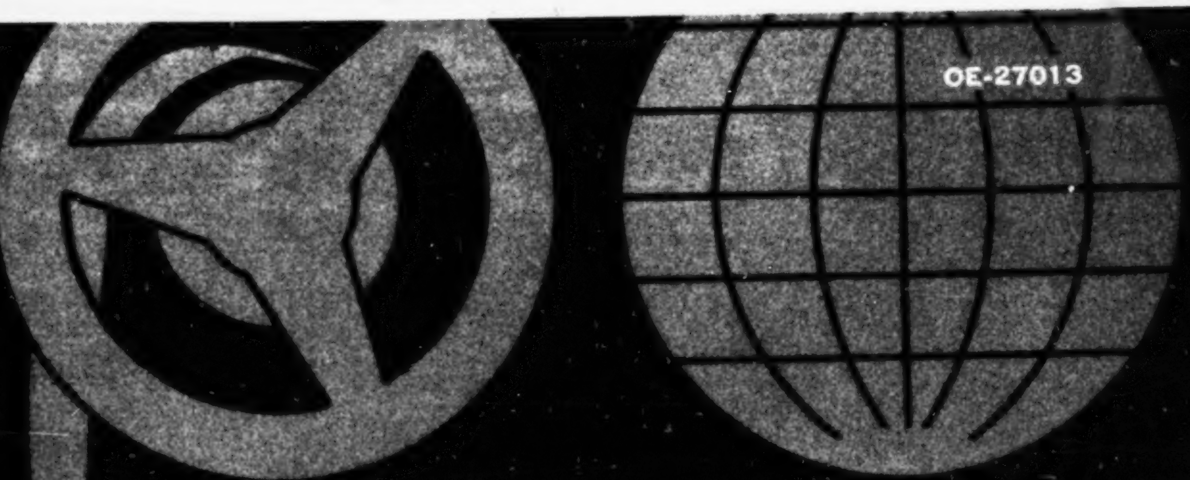

Modern foreign Languages in high school:

The Language Laboratory

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education

Highlights

The use of electronic audio devices gives pupils the opportunity to listen regularly to foreign speech and to practice speech production under conditions which make proficiency a realistic goal.

The key to the newer approaches to foreign language learning is found basically in the methods and materials rather than in the equipment.

Any plan for considering the use of language laboratory facilities first includes a reappraisal of the school's foreign language program.

The language laboratory makes its greatest contribution as an integral part of a program in which audio-lingual instruction forms the basis for the progressive and continuous development of all the language skills. It is at its weakest when used only as an adjunct to a traditional grammar-translation type of program.

An adequate inservice training program for teachers is of primary importance during the planning stage and before the purchase of student equipment.

Language laboratory facilities can free the teacher from the tedious task of presenting repetitive drill material, thus permitting him to evaluate and guide individual student performance while the group continues its study practice.

Further controlled research is needed to explore the most effective utilization of equipment in language learning activities.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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MODERN FOREIGN LANGUAGES IN HIGH SCHOOL:

The Language Laboratory

By JOSEPH C. HUTCHINSON
Specialist
Foreign Languages
Science, Mathematics, and Foreign Language Section

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
ABRAHAM RIBICOFF
Secretary

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STERLING M. MCMURRIN
Commissioner

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Foreword

A REMARKABLE CHANGE has occurred since 1958 in the teaching of modern foreign languages in the high school. Coinciding with a new emphasis on developing the neglected skills of understanding and speaking, the use of electronic audio devices is giving pupils the opportunity to listen to foreign speech and practice it regularly under conditions which make proficiency a realistic goal.

Title III of the National Defense Education Act of 1958 authorized a program of financial assistance to State educational agencies for projects of local educational agencies for the acquisition of laboratory or other special equipment needed in the teaching of modern foreign languages and for minor remodeling of laboratory or other space to be used for such equipment. Loans to nonprofit, private schools were authorized for the same types of projects. Under the provisions of this Act hundreds of schools have already installed language laboratories.

The installations vary greatly, from simple listening corners having a single playback machine to fully equipped laboratories in which each pupil has a semiprivate booth complete with microphone, activated earphones, and facilities for recording and playing back his imitation of the model. Great variation is to be expected because of the diversity in our school systems and the autonomy of the local district as well as the wide range of teaching situations in foreign language classes.

This state of newness, variety, and rapid growth of language laboratory facilities clearly indicates, however, a need to explore with considered judgment the relationship of equipment functions to language learning activities. The purpose of this bulletin is to offer teachers and administrators some practical guidelines for planning a language laboratory and for obtaining maximum educational value from the electromechanical equipment selected.

E. GLENN FEATHERSTON,
Assistant Commissioner and Director,
Division of State and Local School Systems.

JOHN R. LUDINGTON,
Director, Aid to State and Local Schools Branch,
Division of State and Local School Systems.

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Modern Foreign Languages in High School:

The Language Laboratory

Introduction

ONE of the most dramatic changes in American education within the past 2 years has been the widespread introduction of language laboratory facilities into secondary schools throughout the Nation. This growth, which received its impetus from provisions of Title III of the National Defense Education Act of 1958, has been due to a realization that our educational system was not keeping pace with our national needs for persons competent in understanding and speaking modern foreign languages. Recent developments in the field of educational technology partly explain the acceptance of electromechanical equipment as an adjunct to language teaching, but a gradual development in language laboratory theory and practice has been taking place since World War II, when use of new techniques and materials based on the latest knowledge of linguistic science met with success in specialized language training programs for military personnel.

Continued interest in the successful experience of these intensive programs led several colleges and universities to experiment with modified versions of them after the war. Most of the colleges were unable to provide the same amount of intensive contact hours per week, nor could they provide for numerous practice sessions of small groups with native speakers as drill masters. It followed, therefore, that more and more reliance was placed on the use of recordings and multiple-headphone listening systems. As early as 1947, one university[1] had installed 100 partitioned cubicles, each equipped with a disk player, headphones, and microphones for individual listening-speaking practice for students in its regular college language courses. Such installations made it feasible to provide regular practice with authentic native voices, yet did not require the presence of a staff of native speakers. Similar experimental programs were gradually being established at more and more universities, using first phonographs, then wire recorders, and finally, tape recorders which began to appear on the American market soon after the war. The development of magnetic recording facilities gave more impetus to the widespread use of such equipment, for now it became relatively simple to experiment with locally made recordings.

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[1] Louisiana State University. *See* Alfred S. Hayes. "Problems of the Language Laboratory." *Report of the Third Annual Round Table Meeting on Linguistics and Language Teaching*. Salvatore J. Castiglione, *ed.* Monograph Series on Linguistics and Language Teaching No. 2, September 1952. Washington: Georgetown University Press, 1952. p. 47–56.

By 1950, about 100 colleges and universities had language laboratory listening facilities. Many also had isolated individual recording facilities for students. Within the next year or two, a few universities began to install and use a new commercial development which afforded individual student recording facilities for groups. This system provided a central program source and teacher monitoring facilities at each row of booths and at the console.

Concurrent with these developments were the increasing worldwide responsibilities and commitments of the United States, including the ideological struggle for the minds of men throughout the world and the concept of international cooperation through the United Nations. An eloquent account of our national needs and shortcomings in the field of foreign languages was written in 1954 by the Executive Secretary of the Modern Language Association of America for the U. S. National Commission for UNESCO.[2]

Efforts to increase the effectiveness of foreign language instruction often went hand in hand with the development of language laboratory facilities, but few high schools could afford such expensive facilities. In addition, high school foreign language programs had been suffering from a long period of lack of interest on the part of the public and professional educators. By 1957, interest in the growth and use of language laboratory facilities led the U. S. Office of Education and the Modern Language Association to cooperate in a national survey of practices and uses of language laboratory facilities in colleges and secondary schools.[3] It was found that 64 public and private secondary schools and 240 public and private institutions of higher education used laboratory facilities for foreign language instruction.

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[2] William R. Parker. *The National Interest and Foreign Languages.* Rev. ed. Department of State Publication 6389. Washington: United States Government Printing Office, January 1957. Revision in progress. 133 p.

[3] Marjorie C. Johnston, *and* Catharine C. Seerley. *Foreign Language Laboratories in Schools and Colleges.* U.S. Department of Health, Education, and Welfare, Office of Education Bulletin 1959, No. 3. Washington: United States Government Printing Office, 1959. 86 p.

Our national need for improved foreign language instruction was recognized officially by the Congress and the President with the enactment of the National Defense Education Act of 1958, which, in addition to supporting other national needs in education, provides financial assistance to public elementary and secondary schools for strengthening instruction in science, mathematics, and modern foreign languages. The title III provisions of the Act include matching funds for the acquisition of instructional equipment and materials, and for State supervisory and related services in the three subject matter fields. These programs are administered by the State educational agencies according to approved State plans which the States themselves set up to meet their own specific needs. Title III, in addition, makes federal funds available for loans to nonprofit private elementary and secondary schools for the same purposes.

Title VI of the act provides for training in scores of "critical" languages by establishing Language and Area Centers at universities and granting special graduate fellowships for study at those Centers and in other institutions. In addition, and more directly pertinent to high schools, provision is made for advanced training of thousands of elementary and secondary school foreign language teachers in federally sponsored institutes at colleges and universities. The research and studies program of title VI provides for contracted research in problems of foreign language instruction, including the development of specialized materials.

Title VII of the act also provides funds for research and experimentation in the use of new educational media, including television, motion pictures, autoinstructional devices, and language laboratories.

Many tangible results of these efforts to improve foreign language instruction have already appeared in the form of increased enrollments and offerings in elementary and secondary school foreign language programs. By 1961 50 foreign language supervisors and consultants were on the staffs of 38 State educational agencies as compared to 6 supervisors before NDEA. In addition to those trained in the NDEA institutes, thousands of foreign language teachers have received training in special workshops and seminars sponsored by State educational agencies, local schools and school systems, and colleges and universities. A remarkable spirit of cooperation has developed among all levels and branches of educational institutions and organizations in a mass response to these unusual opportunities. Thousands of elementary and secondary schools have purchased new instructional equipment and materials. Plans are already being made for a survey of this rapidly growing field. The Office of Education has accumulated from a variety of sources an unofficial file of about 2,500 second-

Courtesy International Communications Foundation

Teachers gain confidence and skill with equipment through informal sessions with an experienced teacher.

ary schools having some kind of language laboratory. It is estimated that about 700 colleges and universities also now have some kind of language laboratory.

Such a rapid increase in the use of electromechanical equipment as an aid in foreign language instruction has not taken place without problems. There are still many misunderstandings about the proper role of such equipment and the most effective procedures for planning and utilizing it within the current instructional framework.

Many teachers have a distrust of machines, and some may have had almost traumatic experiences with inadequate audiovisual aids. Fears are generally dissipated, however, once the teacher has had ample opportunity to see a language laboratory in actual use and then to sit down quietly and away from the students with an experienced teacher and go through some of the functional phases of the equipment. Observing in person the results achieved by students through language laboratory practice has been perhaps the most effective way to convince the skeptic.

Part of the confusion surrounding such a new field is the lack of an adequately developed standard terminology. The term "language laboratory" itself is generally accepted as denoting various combinations or systems of electromechanical equipment used principally to aid the teaching-learning of foreign languages. Actually the term has become almost generic and has at times been used to mean an idea, a method, a technique, a special room, a machine, or various types of electronic systems. There are actually so many facets to the term that it is as subject to misuse or misunderstanding as the term "audiovisual."

Much has been written recently about language laboratories, including professional, popular, and commercial articles, as well as books and scholarly theses, and varying points of view have been expressed. One thing remains certain. It may be quite some time before a single definitive volume will appear that can adequately cover all the complicated facets of language laboratory learning. It is probable that every person with laboratory experience has received numerous letters from teachers, administrators, and interested laymen requesting, "Please write me all about language laboratories." One engineer, in response to a request for information on the various functions of the console he had designed, expressed his sense of inadequacy by writing that he could only do it justice in person and "with much waving of the hands." Nevertheless, there is a real need for more literature that not only explains the various types of equipment, but also gives teachers and administrators more detailed guidance in the planning and operating stages. This bulletin attempts to shed more light on the subject and to point out other useful sources of reliable information. Needless to say, a fairly complete and accurate understanding of this field can only be reached by studying many points of view and by observing in person a variety of operating installations.

In addition to the current problems caused by the growth of this field, there is great need for further research towards the solution of other unresolved problems. There are questions about pedagogical and technical standards, questions about the most effective techniques and procedures, questions about evaluative criteria, and others. Even when the answers to these questions are found, there will still be the inevitable final question, "Which of all these useful possibilities is best for us in our own local school?" This can only be answered by those directly involved in the local situation where the specific requirements are intimately known.

Planning for Language Laboratory Facilities

Rationale of the language laboratory

It would be entirely unrealistic to approach such a complex subject as the teaching-learning process in foreign languages through only one of the many interrelating factors that must be considered. Decisions on equipment to help implement a foreign language program cannot be made properly until the program itself has been carefully planned, for the language laboratory is not an end in itself.

Planning must take into consideration first of all the students and their specific range of needs, age levels, interests, and special abilities. Next, the objectives of the course, both short-range and long-range, must be considered. The question must be raised here as to whether the listening and speaking skills are to be given emphasis. If not, there may be no need for equipment other than occasional audiovisual aids for enrichment purposes.

Objectives cannot be decided upon adequately without some understanding about the nature of language and language learning. For example, language as talk compared to language as writing, and language learning as the formation and performance of habits compared to language learning as problem solving.

Another step to be considered is the method to be used in carrying out the objectives of the course. Will there be an initial period of exclusively audio-lingual training, and will frequent and regular guided practice with authentic speech models be used to facilitate overlearning? Or will emphasis on grammar-translation activities retard the listening-speaking-reading-writing progression?

A further major consideration is the choice of adequate materials to be used in instruction. Are they based on authentic speech patterns? Do they provide for gradual mastery of the most common structures and vocabulary in context through pattern practice? Are basic text materials and recorded practice materials the same for both class and laboratory use?

A final consideration of equal importance is the readiness of the

Courtesy Mary Baldwin College, Staunton, Va.

The teacher is freed from the task of providing repetitive drill material and can focus attention on individual student performance.

teacher, by attitude and training, to use any electromechanical equipment as a teaching tool. First of all, if the teacher is not ready to teach according to the aims, methods, and materials that have been decided upon and do it without equipment, how can he be expected to do it with equipment? An inservice training program that gives teachers a basic orientation in the newer methods and materials, as well as ample opportunity to coordinate these with the use of simple equipment, is the least that can be done to prepare the way for purchasing any kind of language laboratory system.

Before considering what type of equipment may be needed, it would be profitable to examine carefully what it can contribute to the foreign language program and what it cannot contribute. One cannot expect language laboratory facilities, or any other teaching aid, to be a panacea for instructional problems or to do the whole job of teaching. A well-qualified teacher with adequate materials can achieve good results without the aid of equipment, although even the best qualified teacher, with the best prepared materials, can use his energies to better advantage if the machine takes over the purely repetitive types of drills.

The following are things the language laboratory facilities can do:

1. Provide for active simultaneous participation of all students in a class in listening and listening-speaking practice in or out of class.
2. Provide a variety of authentic native voices as consistent and untiring models for student practice.
3. Provide for individual differences through guided practice in individualized-group, small group, or individual study situations with facilities for student self-instruction and self-evaluation at his own learning rate.
4. Free the teacher from the tedious task of presenting repetitive drill material, thus allowing him to perform a dual role simultaneously.
5. Afford the teacher an opportunity and convenient facilities for evaluating and correcting the performance of individual students without interrupting the work of others.
6. Provide intimate contact with the language, equal hearing conditions for all

Courtesy Language Institute, Rosary College, River Forest, Ill.

The language laboratory can provide for simultaneous active participation of all students in a class.

students, and facilities for simultaneous grouping of different activities through the use of headphones.

7. Provide a reassuring sense of privacy, reduce distractions, and encourage concentration through the use of headphones and partitions.
8. Provide facilities for group testing of the listening and speaking skills.
9. Provide for special coordination of audio and visual materials in sequential learning series or in isolated presentations.
10. Provide aid to some teachers, who for various reasons do not have adequate control of the spoken language, in improving their own audio-lingual proficiency.

Language laboratory equipment, like other educational media, has potential dangers as well as exciting and useful possibilities. It is easily subject to over-use, misuse, and unrelated use, yet it has strong capabilities for enhancing instruction and contributing to more effective learning of the listening-speaking skills. It is up to the teacher, with the support of administrators, to get the best out of it. Equipment does not necessarily make it feasible to raise the student-teacher ratio, nor does it make the teacher's task less time-consuming. Equipment does not necessarily make teaching or learning easier, but it can make them more interesting and more productive. Hundreds of dedicated secondary school foreign language teachers have already been struggling with the pitfalls and enjoying the rewards which often mark the initial period of language laboratory use.

The language laboratory makes its greatest contribution as an integral part of a program in which audio-lingual instruction forms the basis for the progressive and continuous development of all the language skills. The language laboratory is at its weakest (1) when used as an adjunct to a traditional grammar-translation type of program, (2) when it is expected to fulfill requirements other than its basic function of helping develop and maintain the listening and speaking skills, (3) when used only for enrichment or peripheral activities, (4) when it is expected to perform the miracle of teaching the listening and speaking skills alone without the coordination and integration of classroom activities and materials, (5) when the teacher is expected to prepare all the recorded practice materials, (6) when it is used to further unsound pedagogical practices, and (7) when it allows the machine to interfere with teacher-student rapport. But, chiefly, it is at its weakest without the humanizing influence of the teacher over the machine.

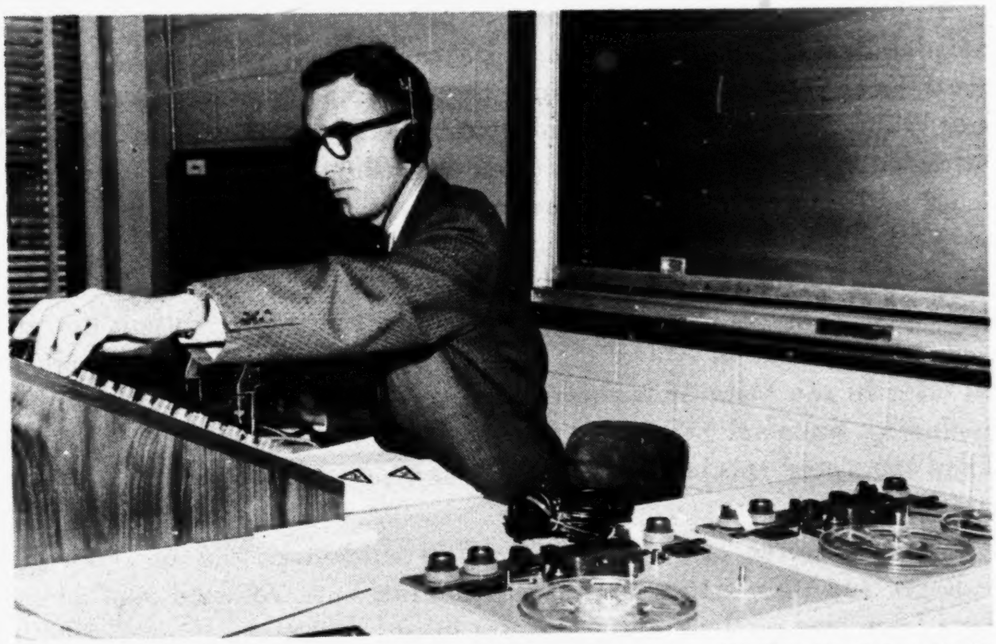
There are areas of controversy and lack of agreement among members of the profession concerning the relative importance of various aspects of the language laboratory. Not all agree that there is value in having students record and replay their own practice responses for comparison with the model utterances of the recorded lesson. The advantages and disadvantages of installing sound-treated booths or partitions are still being discussed. There is disagreement about the advantages and disadvantages of teacher-student intercommunication facilities. There is also some uncertainty as to the exact specifications needed for audio quality in equipment, although a consensus is rapidly forming to protect both students and teachers from some of the inferior equipment on the market.

Research on these and other aspects of language learning equipment is imperative. Many of these problems are intricately involved with the complexities of the psychology of learning (especially the peculiar problems of language learning), psycho-acoustics, and electronics. Research projects on some of these problems are already underway, but more will be needed, especially a highly controlled kind of research with properly planned experimental design. One of the greatest needs at present is for adequate standardized tests for the listening and speaking skills. This difficult field has been explored to some extent, and such testing instruments are already being developed.

In spite of lack of agreement on some things and lack of certain kinds of experimental evidence, large numbers of teachers and students derive genuine benefits from the use of language learning equipment. In the foreign language teaching profession there is general acceptance of many new basic concepts such as the listening-speaking-reading-writing progression of learning. Superior teaching is still an art which gains much of its strength through intuitive and empirical procedures. However, the fields of linguistics, psychology, and other allied disciplines have already contributed much, and hopefully will contribute more research to identify those elements in the applied field of language teaching and learning that are most productive.

The language laboratory in the secondary school program

It cannot be emphasized too strongly that any plan for using language laboratory facilities must first include a reappraisal of the school's foreign language curriculum. Such facilities by their mere presence do not guarantee the improvement of instruction. Their proper role is that of a useful tool which can help implement the work that needs to be done, provided the tool is used skillfully as an integral and planned part of the program. Too much emphasis on the "hardware" aspects of such facilities can lead to the dangerous position of owning a language laboratory as a status symbol. One must also anticipate what will take place after the initial enthusiasm based on novelty begins to wear off. The installation of language laboratory facilities is only one of several ways to improve a foreign language program.



Courtesy The Indiana Teacher

The teacher can use the lab to provide native voices as models.

Learning that leads to mastery of the four basic language skills (understanding, speaking, reading, and writing) requires a fairly long apprenticeship that must be reinforced by sequential continuity. In a school situation, such learning cannot be accomplished in a span of 2 years. To develop language skills and to provide for the increasing student interest in foreign languages, numerous schools are extending the sequence of courses offered. In many cases, schools are planning to offer 4-year, 6-year, 10-year, and even 12-year sequences of foreign language instruction. In this connection it should be stressed that long-range educational objectives include much more than mastery of skills. Foreign language study also contributes many important intellectual, humanistic, cultural, and general educational values.

In the past, schools often neglected the development of the active listening and speaking skills. Now that schools are planning to devote considerable attention to training in the spoken language, the installation of language laboratory facilities should be considered.

Once decisions are made to provide training in the various language skills, much cooperative planning and work by teachers, supervisors, and administrators are needed before consideration should be given to a specific type of commercial language laboratory installation.[4]

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[4] Alfred S. Hayes, *Step-by-Step Procedures for Language Laboratory Planning: Some Suggestions for Schools and Colleges*. New York: MLA Foreign Language Program Research Center, 1960. 16 p. Processed.

An inservice training program is of primary importance at this stage of planning. This can sometimes be carried out completely on the local level as a cooperative study group using local resources whenever they are available and adequate. Many teachers have already attended NDEA institutes and other workshops and seminars at colleges and universities. Such teachers can provide valuable leadership in planning and conducting workshop sessions. Even when local resources are available, it would be advisable to seek assistance and guidance from the foreign language supervisor or consultant in the State department of education. These professional leaders have much to offer in the form of resources and consultative services, sometimes including financial assistance for inservice training programs. Many have sponsored special programs of this type in various parts of their States.

Another source of consultative aid in workshops can be found in colleges and universities. A few universities have released staff members from part of their normal duties in order to make them available to schools for helping with inservice programs or for assisting in planning language laboratory facilities.

An inservice training program for these purposes cannot be expected to be very effective if it tries to cover methods, materials, and equipment in the space of a few hours. Several sessions will more than likely be needed in order to be productive in results. In addition to becoming acquainted with new methods and materials through talks and discussions, teachers will need actual demonstrations of the techniques used in applying them. The same applies to equipment. This orientation is most easily achieved initially with a simple basic piece of equipment such as a tape recorder. Later on, more complex equipment may be used when available in a nearby school.

To be successful a workshop must provide ample opportunity for the participants to practice the application of what is presented, whether it be methods, materials, or equipment. It is especially important for teachers to learn early how to manipulate any equipment that may be used in instruction at a later date. Unless confidence is gained in these operations, away from the tensions of the classroom, teachers may experience embarrassing situations before mastering the equipment for effective teaching.

One should not expect commercial equipment representatives to train teachers in pedagogical matters. Their function in demonstrating the operation of equipment, either before or after actual installation, is very useful and often necessary. In fact, once an installation has been made, all teachers who will use the equipment should receive thorough training by the installers in the physical and operational functions of the equipment. On some occasions, it has been reported that administrators were so curious and interested in these briefing sessions that the teachers themselves were lost in the background and later had to learn for themselves how to operate the system.

Teachers should not feel hesitant to admit a lack of knowledge about the new methods, materials, and media, since few people are real experts as yet. But a teacher should try to have an open mind, display a willingness to learn, and try to keep abreast of the many new developments rapidly taking place in the profession. Membership and participation in professional language organizations and study of the current professional journals can do much to enhance a teacher's effectiveness, not only as an individual teacher, but also as a member of a profession.

Methods and materials for the laboratory

The key to the newer approaches to foreign language learning is found in the methods and materials rather than in equipment. The function of equipment is merely to help implement instruction which

1 - Blk-Red
2 - " - Orange
3 - " - Brown
4 - " - White
5 - " - Green
6 - " - Blue
Cut off
Green & Red
White & Red

Photo by Edward H. Goldberger

The installer should provide adequate training for the teachers in the physical and operational functions of the laboratory system.

the teacher presents in a particular form (materials) and manner (method).

Once inservice training is underway, much study and evaluation will be needed in the process of selection and preparation of materials. Most logically, one would begin with the materials of the first level of instruction and gradually devote attention and effort to the next level above in sequence, especially if radical changes are to be made. Adequate and complete materials in printed and recorded form for integrated class and laboratory use with the audio-lingual approach are not readily available for all levels during this transitional period, but adequate materials for the beginning level are starting to appear and more should be forthcoming in the near future. The revision of the *Materials List for Foreign Language Teachers* is now being made by the Modern Language Association. In addition, a carefully prepared list of evaluative criteria for guidance in selecting materials has been prepared by the MLA.

Teachers should not be expected to prepare their own basic instructional materials. The teacher is not usually equipped to prepare what is equivalent to a textbook, nor does he have the time. Yet a large number of teachers have attempted to do this out of desperation when proper materials were not available. A few cooperative groups of teachers in large school systems have been successful in sharing the burdens imposed by such a procedure. Some have adapted existing materials to the newer concepts,[5] while only a few have been able to create new materials.

In planning ahead, teachers can at least get a gradual start by getting acquainted with samples of the new types of materials and by beginning to use them in instructional situations including use with a portable tape recorder. One of the wisest things a school could do during this transitional period is to see that a portable tape recorder is provided every foreign language teacher for use in the classroom and outside the school.

In order to present some of the interrelating features of the newer methods and materials, the following outline and commentary attempts to show that sequences of progressions and levels are constantly involved in different combinations and with changing emphases. Whenever there is a time differential between some of these steps it may be a few seconds or minutes for one item while for another it may mean months. The main purpose here is to show that sequences and sequences within sequences are involved. In addition, even though emphasis may change from one sequence to the next, the preceding steps are usually maintained throughout. Overlearning is implied as a prerequisite of one step to the next in those items concerned with development of skills.

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[5] Patricia O'Connor. *Modern Foreign Languages in High School: Pre-reading Instruction*. U.S. Department Health, Education, and Welfare, Office of Education Bulletin 1960, No. 9; OE 27000. Washington: United States Government Printing Office, 1960. 50 p.

LISTEN → LISTEN-SPEAK → LISTEN-SPEAK-READ-WRITE →

Listen.—Ear training must precede mouth training. The acoustic image of the model must be established or internalized as a part of speaking readiness. This involves listening for aural discrimination (distinguishing between contrasting sounds in the foreign language and distinguishing between correct and incorrect versions of these sounds) as well as listening for comprehension or meaning. The format of this material in recorded form would normally be that of uninterrupted natural speech, special exercises contrasting various sounds, or even the basic materials used later for mimicry-memorization.

Listen-speak.—The overt responses by the student to spaced model utterances can begin after sufficient listening practice has established sound discrimination and comprehension. The length of utterances for imitation is critical, for the auditory memory span is surprisingly short in early training. Utterances of 12 to 15 syllables should be given in partials, or built up from the end so that each partial utterance forms a meaningful segment and retains its natural intonation pattern. Partials should preferably be no longer than 5 or 6 syllables.

The combination of partials with silent spaces and final complete utterances with silent spaces gives the student several successive opportunities with each utterance before proceeding to the next. The length of the pause or silent space on the recorded program should preferably be equal to the preceding utterance plus an additional second or two for reaction time. The space should hardly ever exceed twice the length of the preceding utterance. The level of difficulty of listening and speaking practice should increase as these skills are maintained throughout the foreign language program.

Reading and writing.—Practice in these should normally be imitative at first, that is, reading and writing practice only with material that has been mastered through listening and speaking practice.

$\xrightarrow[\text{INITIAL TIME LAG}]{\text{AUDIO-LINGUAL}}$ $\xrightarrow[\text{OF TIME LAG}]{\text{RECYCLING}}$ $\xrightarrow[\text{AND WRITING}]{\text{DIRECT READING}}$

Initial audiolingual time-lag.—This period is devoted exclusively to the listening and speaking skills before any reading or writing activities are begun. The amount of time involved in such a prereading period can vary from several weeks to several months, depending upon many other factors.[6]

Recycling of time-lag.—Once the students are exposed to reading and writing, there is usually a period in which each new unit of material is mastered orally before the students are given access to the written version. Such a cycle may be completed during a few days but the process of recycling would normally continue throughout the first year.

Direct reading and writing.—Once the students have control over the sound and the basic structures of the language through audiolingual practice, direct reading and writing of new material may begin with continued reinforcement by maintaining audiolingual practice.

DIALOG → PATTERN DRILLS → CREATION OF NEW UTTERANCES →

Dialog.—Dialog or situation-oriented material for mimicry-memorization practice contains the basic material for each unit. These model utterances (usually 10 to 15 at first) should contain authentic speech patterns based on high frequency or the most common structures and vocabulary of the spoken language. They are more useful when based on meaningful and authentic life situations of interest to the age level of the students. Meaning or comprehension can be presented in several ways, but translation, except as an occasional teaching device, should not be used as an exercise for students. The use of the word *dialog* assumes that the conversational forms of the language are used, proceeding from two or more persons talking about themselves to talking about other people and things. Narrative and description may be gradually added.

Pattern drills.—After mastery of the dialog sentences, one structure at a time can be presented for practice in various kinds of pattern drills in order to achieve automatic control of the structure. Models for these drills are usually based on sentences from the dialog and may begin branching out through directed dialog and other such procedures. These drills should be for learning first. Testing can follow later.

Creation of new utterances.—After mastery of a number of related utterances and situations, the student may gradually be encouraged to recombine these into new utterances and situations within the limits of structures and vocabulary under his control.

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[6] *Ibid.* p. 8-9.

IMITATE → MANIPULATE → CREATE

Imitate.—This is the mimicry-memorization practice, usually with the model sentences of the dialog, which follows listening practice. Imitation of the model should include numerous repetitions to the point of automatic response by memorization. It is also during this phase that pronunciation of the models should be perfected.

Manipulate.—This is the pattern practice in which controlled variables of a specific structure are practiced to the point of mastery. This should proceed step-by-step from simple or known elements to more complex or unknown elements of a specific structure. These may be based on a situational context and do not consist of mere questions and answers or conjugations of sentences. The recorded practice material may present the problem, followed by a space for the student's response, but confirmation should follow next in the form of the correct response. When the student is asked to imitate the correct response, it is usually preferable for the program to repeat it again so that the student's last impression of the utterance is that of the correct model. This presentation of challenge with a built-in reward provides an immediate reinforcement that is important in learning. The challenge should not be beyond the student's reach, however.

Create.—As the audiolingual skills are developing and as control over segments of conversational interchange is gained, controlled conversation practice with the teacher and with other students should gradually become more free and creative. This is one area where only the teacher can give creative guidance, for equipment can contribute nothing at this point.

SOUND →	FORM AND ORDER →	VOCABULARY →
Form and Order and Vocabulary	Sound and Vocabulary	Sound, Form, and Order

Sound.—The pronunciation, rhythm, and intonation of language should normally receive initial emphasis in listening and in speaking practice even though the models also contain examples of structure and vocabulary. Natural and authentic native speech should be used as the models. Complete utterances in a meaningful context offer a more productive vehicle for the materials. Special materials for aural discrimination training would not necessarily appear in this form.

Form and order.—This includes the grammatical structures of the language as they are incorporated in pattern drills. The various forms of words and the order in which they occur in normal utterances receive increasing emphasis along with the sound of the language. The number of variables practiced at one time should be carefully controlled. Explanation and analysis of grammar may be necessary at brief, carefully chosen intervals, but automatic response habits should minimize the need for this. Progression in the learning of structure is not linear in the sense of learning all about one grammatical item and then proceeding to learn all about the next one. Only conversational forms should be used during the audiolingual period and perhaps for the entire first year. At any rate, purely literary forms should be withheld until the basic reading and writing skills have been established.

Vocabulary.—Vocabulary should be learned as an integral part of the practice material rather than in isolated lists. The choice of items should be very limited during the early stages of training and should be based on the most common words used in the spoken language of everyday life. Vocabulary can be expanded gradually as it is used with known structures. Once the basic structures and sound patterns are mastered, the free expansion of vocabularly can be almost unlimited.

PRESENT → DRILL → MAINTAIN →

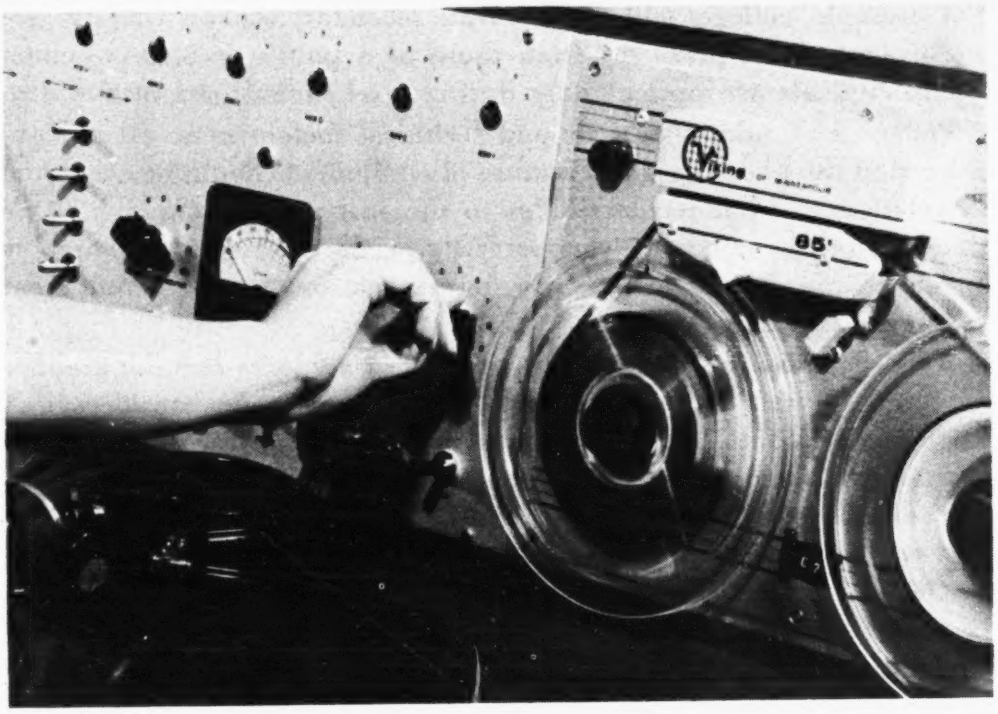
Present.—New material should generally be presented by the teacher in class. The teacher in person can control the rate of introduction of new material according to the immediate situation. He can provide the proper setting for comprehension in a variety of ways, including natural gestures, facial expressions, and visual materials. Much later in the course, when sound and basic structures are well established, new material can be presented effectively by a recorded program source.

Drill.—Once the new material has been well presented and drilled through classroom procedures, the machine can then present the models or problems for the numerous repetitions needed for overlearning. This drill for the formation of automatic habits can also be guided by the teacher as he works along with the machine. Drill is one of the major functions of the language laboratory.

Maintain.—Audiolingual skills must be maintained through constant review and practice. Frequent recurrence of old material should be interwoven throughout the course. Both learning tests and achievement tests are a part of this process. The language laboratory can play a large part in providing this kind of practice and facilities for testing.

Evaluating and selecting equipment

After reappraising its foreign language program and studying the



The teacher controls the presentation of recorded practice material.

specific needs and resources for supporting equipment, the teachers and administrative staff of a school can begin a careful study of specific equipment. One should not consider a year as too much time to spend in planning, if it is decided that language laboratory facilities are needed. Such a large variety of equipment is now available from approximately 50 different companies that the evaluation and selection of equipment can be a difficult procedure for many schools.

Valuable advice and information can be obtained from careful study of the *Purchase Guide* and its *Supplement*.[7] In addition to these, most State departments of education have formulated standards and guidelines for schools participating in title III programs.

Visiting other schools which already have language laboratory facilities can be a very revealing experience, and much valuable information can be gathered from such visits. Frank discussion with teachers and administrators of other schools about their experience with the equipment can often prevent mistakes and can also confirm judgments that may have already been made. Before attempting to copy what another school has done, one should consider that each situation may call for a different combination to suit the specific requirements of the school.

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[7] Council of Chief State School Officers, *and* others. *Purchase Guide for Programs in Science, Mathematics, and Modern Foreign Languages; Supplement to Purchase Guide for Programs in Science, Mathematics, and Modern Foreign Languages.* Boston: Ginn and Co., 1959; 1961. 336 p.; 60 p.

For example, colleges and some private secondary schools usually face a different set of problems from those of a public secondary school where students are present only during a scheduled part of the day.

Pedagogical, administrative, and technical factors must all be considered in the planning. Each feature of equipment should be examined in relation to what it contributes to the instructional program. One should consider whether a commercially produced language laboratory system is appropriate or whether simpler combinations of equipment would be adequate.

Whatever decision is made, the number of students and the number of courses which the equipment will serve must be considered. A further consideration should be given to scheduling of facilities according to groups and according to time. Will the equipment be used during regular class periods by the entire class under the instructional supervision of the teacher, or will it be used by individual students in special periods during or outside the school day? Can provisions be made to accommodate the largest foreign language class or will the students in the same class have to rotate in groups? Will scheduling the equipment for 100 percent usage during each session cause major problems whenever a few of the student stations are not functioning because of temporary electromechanical difficulties? Will laboratory sessions in addition to regular class periods be needed? Will the equipment provide facilities for regular and frequent machine drill sessions or will it defeat its own purpose by affording beginning students only one laboratory session per week?

Some of these questions lead to a consideration of whether centralized or decentralized facilities will be more appropriate. Many secondary schools have decided against separate laboratory rooms in favor of the electronic classroom arrangement. Administrative factors have often led to this decision, but in many cases the decision was made for pedagogical reasons. In some schools, it is difficult to distinguish between the two types, since an electronic classroom in some cases may have more elaborate equipment than some separate laboratories.

Decisions on whether to provide for individual or group use should be based primarily on pedagogical factors. The question of whether to include booths of a specific type or no booths is not easy to answer. Will the room be used exclusively for laboratory work or for a variety of activities? Using a room with fixed student partitions for regular class activities can cause a frustrating situation for both teacher and pupils. Should student recording facilities be included? If so, what kind, and how many? These questions can only be answered in relation to all the factors involved. For example, is the expense justified if other students are deprived of having any laboratory facilities?

Will there be adequate facilities for testing the speaking skills without student recording facilities?

The question of whether to provide a teacher console and the number of features to be incorporated in it can pose many problems. Is an intercommunication system really needed? Will it be simple enough to operate effectively? How many different program sources are needed? Are the controls all within easy reach of the teacher? Is there sufficient writing space for the teacher? Will the teacher be able to maintain eye contact with the pupils, and will the pupils also be able to see projected visual materials? Are extra features needed if there is no plan to use them?

A few more of the numerous questions which must be considered include:

1. Are adequate storage facilities available for the materials and simple accessories?
2. How much minor remodeling and extra electrical power wiring will be required for installation? For future expansion?
3. How much preventive maintenance will be required, and who will do it?
4. What accessories, supplies, and spare parts will be needed?
5. Who will service the machines and when?

Courtesy Jefferson County Schools, Louisville, Ky.

Simple audio equipment can also provide for practice with recorded materials.

6. What kind of warranty is included, and what does it cover?
7. How much money should be budgeted for maintenance, repair, and replacement?
8. What is the relation of the actual audio quality to the claimed specifications?
9. Do the specifications contain all the pertinent technical information that is necessary to make them valid?
10. Will a sworn affidavit that the installed equipment actually meets the specifications protect the school?
11. What procedures are established to permit the school to reject an unsatisfactory installation or equipment that does not meet the required specifications?
12. Is the audio quality of the system weakened by inferior headphones or microphones?
13. Will the equipment hold up under constant heavy use?
14. Is it safe to subcontract language laboratory facilities as part of a new building contract?
15. Will the installation be completed by the date specified in the contract or should a penalty clause be added?
16. Will the equipment be compatible with other facilities in future expansion?
17. Will the supplier leave a sample of his equipment to be tested by the school?

Reliable answers to these and many more questions are not usually found in a single source. An unbiased technical consultant can provide some of them. Professional language experts as well as audiovisual personnel in schools and colleges can be helpful. Planning for language laboratory facilities is not generally a simple job for one person to undertake. It requires the cooperative efforts of many people if it is to be done well.

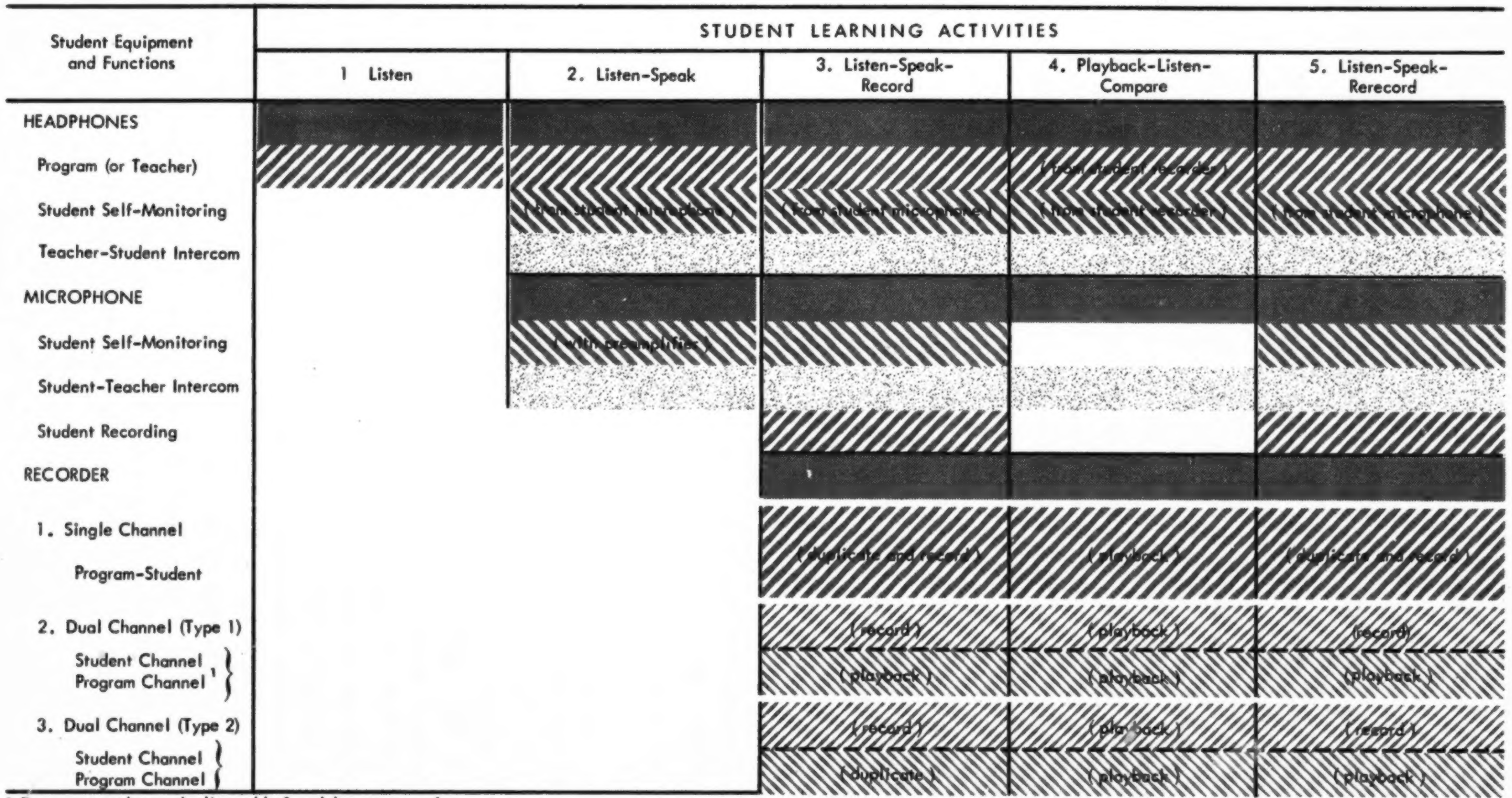
Equipment Functions in Relation to Student Learning Activities

When the foreign language teacher plans a language laboratory, or indeed uses electronic equipment in any system, it is important that he understand the relationship of the basic types of equipment to the teaching method and the student learning activities. This relationship may be discussed according to the functions of each major item of equipment: headphones, microphone, or recorder. Supporting items such as selector switches and teacher's console must also be planned to serve the teaching program. Having decided upon what is needed from the equipment, the teacher can determine what type can best serve his purpose.

The diagram of language laboratory functions, on page 24, shows relationships between the major equipment functions and the student learning activities found in most language laboratory systems currently in use. The arrangement of the diagram does not, of course, imply a preference for one type of system over another except as the student learning activities demand a given type of installation. Certainly the progressing complexity and increase in number of equipment functions can never be the only criteria for improving learning. The teacher, the materials, and the student may perform well or poorly with or without the use of equipment.

The most important pedagogical function of any audio equipment in language learning is to present a clear and faithful model for student drill. The audio quality of equipment is crucial, especially for the beginning learner who cannot properly perceive the unfamiliar sounds of the new language unless they are all clearly presented. Perceiving unfamiliar sounds is not merely a matter of finding them intelligible, that is, comprehending the meaning; it is also important to learn to discriminate differences between the sounds of the foreign language and those of the native language, and this requires accurate hearing of all the features of the speech model. Persons with full control over a language can comprehend audio messages which have been stripped of many of the sound features through poor transmission facilities, but the beginning learner cannot develop such control until after a rather long period of apprenticeship.

Diagram of Language Laboratory Functions


Student Equipment and Functions
STUDENT LEARNING ACTIVITIES
1 Listen
2. Listen-Speak
3. Listen-Speak-Record
4. Playback-Listen-Compare
5. Listen-Speak-Rerecord
HEADPHONES
Program (or Teacher)
Student Self-Monitoring
Teacher-Student Intercom
MICROPHONE
Student Self-Monitoring
Student-Teacher Intercom
Student Recording
RECORDER
1. Single Channel
Program-Student
2. Dual Channel (Type 1)
Student Channel
Program Channel[1]
3. Dual Channel (Type 2)
Student Channel
Program Channel
(from student recorder)
(from student microphone)
(from student microphone)
(from student recorder)
(from student microphone)
(with preamplifier)
(duplicate and record)
(playback)
(duplicate and record)
(record)
(playback)
(record)
(playback)
(playback)
(playback)
(record)
(playback)
(record)
(duplicate)
(playback)
(playback)

[1] Program must be preduplicated before laboratory session.

Explanation of Diagram

The column on the left contains the three major items of student equipment with the major functions of each:

Headphones

a. To present the *program* or lesson which originates from the program source at the teacher console and which may also be played back later from the student recorder, if such equipment is provided.

b. To allow the student to hear himself simultaneously as he speaks and, if he records, to hear himself later as his own recording is played back.

c. To bring in the teacher's voice through the intercommunication system when needed.

Microphone

a. To transmit the student's responses through a preamplifier to his own headphones.

b. To provide student voice contact with the teacher through the intercommunication system.

c. To transmit the student's responses to the recorder for recording.

Recorder

a. To duplicate the program.

b. To record the student's responses.

c. To play back both program and student's responses.

(Three types of recorders provide different methods of accomplishing these functions: 1. single channel recorder, 2. dual channel recorder with one record head and two playback heads, and 3. the full dual channel recorder with two record heads and two playback heads.)

The five vertical columns under Student Learning Activities indicate the major activities associated with various combinations of equipment: LISTEN, LISTEN-SPEAK, LISTEN-SPEAK-RECORD, PLAYBACK-LISTEN-COMPARE, and LISTEN-SPEAK-RERECORD. The last of these is added to show some of the differences in types of recorder when a student begins his second recording of the same material used in his initial recording.

In following each item of equipment and each function across the diagram from left to right, notice that the shaded or patterned blocks indicate when the equipment or function provides facilities for one of the learning activities. Where there is no shading or pattern present the equipment or function is either not required or not in use. Segments of the diagram can apply to systems which contain only one or two of the major components or which combine all possible elements. The teacher console and other features, including variations of equipment, are not included in this diagram of student equipment. The text, however, explains these and other details on each item of equipment as it applies to each of the five student learning activities.

The diagram shows the progression of student learning activities normally used in most language laboratory systems. The sequence, length, and recombinations vary according to the pedagogical requirements of the situation. Although a tape recorder or phonograph can be effectively used in many situations for group practice through a loudspeaker, the loudspeaker does not fit into the main purpose of the diagram. This purpose is to show the progression and relationships of basic equipment and student learning activities which are common in various kinds of laboratory systems. The loudspeaker should, of course, be considered as a valuable supplement to any type of language laboratory system.

Whether in individual or group learning, headphones provide additional features which the loudspeaker does not have. Headphones can provide equal hearing conditions for every member of a group, and give a physical and psychological sense of intimate contact with the speech sounds of the lesson source. Headphones also shut out to some extent the responses of other students and the distracting noises present in most schools, except that systems which provide audio feedback from the student microphone to his own headphones usually allow these same noises to be picked up and amplified. Headphones can further make it feasible for more than one program to be presented and drilled simultaneously in the same room.

Headphones

Headphones are basic for all electronic systems for use in language learning, since listening is the essential prerequisite for progression to other activities and continues throughout all student learning activities, as shown in the figure on page 24 by the shaded areas.

1. **Listen.**—Whatever the equipment, there is usually a learning phase during which the student does nothing but listen to the recorded lesson or program.

Whenever headphones alone are provided, the student will probably hear only the recorded program through the headset. However, it is usually a very simple matter to connect a teacher microphone to the program source and its amplifier so that the teacher may stop the program and speak to the entire group at brief intervals or even occasionally become a "live" program source. With headphones only, the student may also engage in speaking or repeating practice, but he can hear no more than a muffled version of his own vocal responses.

With multiple-headphone group speaking practice, it is quite possible for the teacher to walk around among the students in order to

Headphones encourage concentration and provide intimate contact with the foreign language.

evaluate and correct individual responses; however, coaching of an individual student by the teacher is somewhat awkward, since the student must usually remove one of the earpieces in order to hear the teacher adequately. Unless the teacher is extremely familiar with every part of the recorded lesson, it is sometimes difficult to know precisely which item of the lesson the student is responding to at a given moment. In order to provide for individual differences in hearing ability, it is advisable to provide an individual volume control for each student.

A portable network of headphones has advantages of flexibility but may be awkward to handle and set up, thereby causing loss of instructional time.

2. **Listen-speak.**—During this phase the headphones can bring three separate sources of sound to the student: the program, the student's own voice as he responds, and the teacher's comments through the intercom system. The simultaneous amplification of the student's voice into his own headset seems to provide a steadying influence or self-reinforcement which is needed as he speaks, especially when he does not feel completely secure as to the quality of his vocal response. Here again there is need for individual volume adjustment of both

Students gain confidence through listening-speaking practice.

program and student's response level so that each student can hear clearly and at the level best suited for his individual hearing ability.

3. Listen-speak-record.—While recording, the student usually continues to have the same facilities as covered in 2 above. This is not necessarily true with an isolated portable tape recorder unless the circuitry provides the simultaneous mixing of microphone input with audio (headphone) output. In the history of the development of language laboratory systems only a few custom-built systems have overlooked this important feature. It is normally a standard feature so that the student may continue his self-reinforced listening-speaking practice as he records the program and his own responses in alternating sequences. In the case of a dual-channel recorder, the program may be prerecorded and replayed from the student's own tape as he records his responses. Whatever the student hears through his headphones is recorded simultaneously, including the teacher's voice through the intercom system. The teacher must be judicious in the use of this function, for the intercom usually cuts out the recorded program source.

4. Playback-listen-compare.—During the playback phase the student hears what he has just recorded, usually the program interspersed with his own previous responses. Here the student again concentrates on listening only. He may also hear the teacher through the intercom system, which provides for corrections or other appropriate tutorial comments.

5. **Listen-speak-rerecord.**—This step is presented in the diagram merely to show what takes place if one chooses to repeat phase number 3. It is quite possible, and likely, that it may be preferable to return to phase number 1 or 2 before continuing with number 5. *The immediate learning situation should guide all choices of sequence and length of each phase.*

Microphone

This is usually equipped with a special preamplifier in order to carry the student's voice to his own headphones.

1. **Listen.**—Not applicable.

2. **Listen-speak.**—The microphone not only conducts the student's responses simultaneously through the preamplifier to his own headphones, but whenever an intercom system is provided it also allows the student's voice to be transmitted to the teacher's headphones. By using the proper switches at the console, the teacher, of course, may choose to listen only to an individual student or to carry on a brief two-way conversation.

3. **Listen-speak-record.**—Here the microphone continues its output to the student's headphones while it also transmits the student's responses to the recording mechanism where they usually appear in juxtaposition with the model utterances of the program. Since the microphone is continually operative here, it may also pick up and transmit other sounds to the recording. Student microphone procedure is especially important. The distance of the microphone from the student's lips should not normally be over 3 inches for optimum results. Proper adjustment in the angle of the microphone so that the student speaks into both the front and the side can often substantially improve the recording quality by softening some of the explosive and hissing speech sounds which may be exaggerated by amplification.

The microphone's relation to recording level is usually indicated on the recorder by a meter or some kind of light which shows when the recording level is too high or is overloaded. The recording level control on most standard recorders has sometimes been removed from student language recorders in an effort to simplify the number of operations and controls for student use. This control may be preset at a standard level and later readjusted by a technician. The student can, therefore, control his recording level only through microphone techniques.

There are obviously advantages and disadvantages in each of the several types of microphones and their physical arrangements for student use: hand-held, mounted on flexible spiral cable, desk stand, fixed cable boom, lavalier, and headphone boom. See *Supplement to the Purchase Guide.*

4. **Playback-listen-compare.**—During playback, the microphone is inactive but becomes active automatically when the machine is stopped. If the teacher wishes to converse with the student during this phase, the student must normally be asked to stop his machine in order to reply through the intercom.

5. **Listen-speak-rerecord.**—Same as 3 above, if this step is used next.

Recorder

A recorder may be provided for only a few student positions or for all student positions in a given system. There are many types of recorders available for this function but they are usually based on a single-channel tape recorder or a dual-channel tape recorder.

1. **Listen.**—Even when full recording facilities are present, the student can still engage profitably in listening practice with the basic program material.

2. **Listen-speak.**—Here again listening-speaking practice without recording can be engaged in profitably. There are many good reasons for not overlooking the benefits of listening and listening-speaking practice before attempting to record. The student can readily refine some of the grosser errors of his early attempts by tuning his ear to the model and by bringing his own responses gradually into focus. This process of successive approximations can be extremely beneficial without the aid of recorded self-reinforcement as long as the student is aware of his errors and continues to make immediate progress in correcting himself. It would seem that recording too soon in a learning cycle might act as a negative reinforcer if the student has to relisten to his own imperfect practice responses before he has had sufficient opportunity to try to correct those errors which he had already recognized.

3. **Listen-speak-record.**—The function of the recorder is to receive, and store for later replaying, both the program material and the student's responses, whether in linear or parallel juxtaposition. The *single-channel system* operates in linear juxtaposition so that the model utterances of the program are recorded on one portion of the tape[8]

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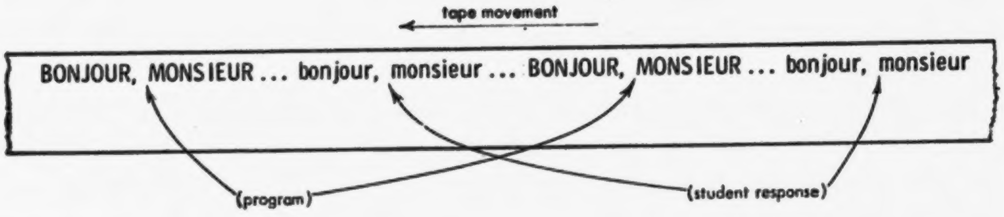
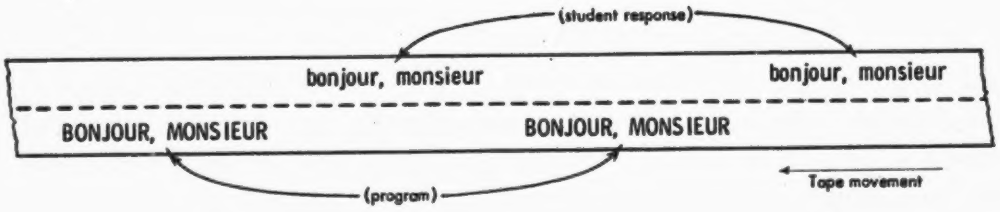
[8] Most recorders of this type use the half-track principle, which is very much like a typewriter ribbon in that only about half the width of the tape is used.

and followed by the student's response to each utterance. In essence this is like recording sound-on-sound except that the student should only record sound-on-silence, i.e. during the silent spaces. Example:


tape movement
BONJOUR, MONSIEUR ... bonjour, monsieur ... BONJOUR, MONSIEUR ... bonjour, monsieur
(program)
(student response)

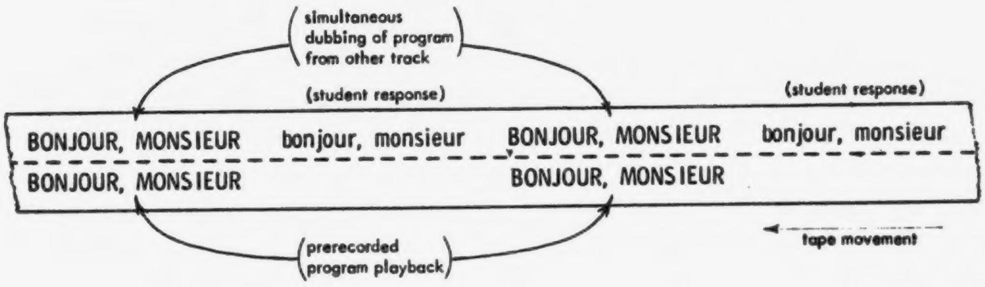
The *dual-channel system* records the program utterances on one track (upper or lower, depending on the recorder) and the student's responses on the other. These are two separate and independent recordings, but they are constantly synchronized in terms of the movement of the tape past the recording heads. Whereas the single-channel operation uses only one recording and playback head, the dual-channel machine may have one or two separate recording heads and must have two playback heads (one for each track or channel). Whenever two recording heads are used, the program originating at the console is recorded or dubbed onto one track (or both tracks in some systems) while the student records independently on the other track, each alternating with silent spaces to avoid actually recording sound-on-sound. Example:


(student response)
bonjour, monsieur
bonjour, monsieur
BONJOUR, MONSIEUR
BONJOUR, MONSIEUR
(program)
Tape movement

If the machine has only one recording head, it cannot record two separate sound sources except in the single channel manner. If the student is to record separately, this active recording channel must be reserved for him. Therefore the dubbing of the program onto the student tape must be done at some other time. Some systems provide a remote-control arrangement for student machines so that a single program can be prerecorded onto a number of student tapes simultaneously. Such equipment is less expensive than the machines equipped with two recording heads and amplifiers, but the copying process is time-consuming. Also such tapes normally need to be erased by a magnetic bulk eraser before multiple copying is done.

These functions are found on most stereophonic tape recorders. In fact many dual-channel language recorders are stereophonic models which have been modified. For example, some stereophonic models can replay prerecorded stereophonic tapes (with two playback heads) but can record only monophonic or single-channel tapes (with one record head), whereas others are equipped to record and playback both channels.

In dual-channel machines which require prerecording of the program before the student can record, the program is either played back as the student records or special circuitry is used so that the program is both played back and simultaneously rerecorded onto the student's active recording channel in the single-channel manner. Example:


simultaneous dubbing of program from other track
(student response)
(student response)
BONJOUR, MONSIEUR
bonjour, monsieur
BONJOUR, MONSIEUR
bonjour, monsieur
BONJOUR, MONSIEUR
BONJOUR, MONSIEUR
prerecorded program playback
tape movement

4. Playback-listen-compare.—In order to play back what he has just recorded, the student must rewind the tape to the desired spot. Some recorders have index counters which automatically keep count of every few inches of tape movement in either direction. This makes it relatively easy to find any spot in the recording quickly, provided that the number of the desired spot is noted in advance. In other recorders one can estimate the location by the "chatter" pattern of recorded responses as they are played backwards at rapid speed. Or one can apply an old trick commonly used in editing tapes, which is to insert a small tab of paper between the tape on the reel and the oncoming tape. This can be an effective indicator since, upon rewinding, the tab of paper is suddenly thrown into the air when that spot is reached. There are various ways to control or indicate the beginning and end of reel-to-reel tape movement such as anchoring both ends of the tape to the reels, splicing a few feet of leader tape (different colors may be used) at each end, and so on.

In addition there are special kinds of machines which use continuous loop cartridges of different lengths. The student does not need to rewind the cartridge, since it usually proceeds immediately from the end of the program to the beginning. However, there is normally no provision for stopping and rewinding the cartridge tape to any point desired at a given time for selective replaying. The student must wait for the full cycle of the tape to be played.

During the playback phase there is no essential difference among the various types of recorders as to what the student hears. Most of his recording exercises will be of the program-stimulus/student-response type. The student's main task here is to listen critically to the model utterances and compare his own version with them. If he has had sufficient listening and listening-speaking practice with the basic material in both class and laboratory before recording, the student is now ready for what might be called a self-learning diagnostic test. When he first hears his recorded voice he usually experiences a certain shock effect of disbelief, since people are accustomed to hearing themselves speak through a combination of bone conduction and air conduction. The recorded voice preserves only the air-borne element, and this may be slightly changed by the electronic amplification process. The amount of distortion will depend largely on the quality of the recording/playback equipment.

After this brief initial shock, the student should be ready to diagnose some of his errors which were not apparent to him before. Individual differences will inevitably appear, because students vary considerably not only in their ability to identify their own errors through recording, but also in their ability to correct them. Active monitoring by the teacher through the intercom during this phase is especially important in order for him to locate trouble spots and come to the rescue of those who need the most help.

The student now has the program source under his own control, which is the same as having individual study facilities. He can play and replay any portion of the recorded lesson as he needs it. He can stop at any point and practice a particular utterance several times. Even with single-channel equipment, any single model utterance can be replayed and stopped for an immediate additional attempt to improve a response. (Note: When the machine is in STOP position the microphone should be automatically activated for simultaneous self-monitoring.) There may be times when it would be beneficial for students to dub the program from the console onto their own recorders without recording their own responses, perhaps during a listening-only phase, so that they can work at their own pace with the model utterances.

Dual-channel recorders were originally designed to furnish the student with complete control of his program source, as the next phase indicates.

5. **Listen-speak-rerecord.**—Once the student has listened to his own performance and compared it with the model, he will want to have

an immediate opportunity to try it again so that he can prove to himself that he can improve on his earlier responses. At this point the basic difference in recorders becomes apparent.

With a single-channel recorder the student cannot rerecord at will. He must either keep replaying the program as he originally recorded it or wait until the program is rebroadcast from the teacher console. If the student attempts to rerecord without an incoming program, he will be erasing his previous program and can record only his own voice or perhaps also the teacher's if they are in intercommunication with each other. This situation makes it important for the teacher to provide brief and frequent program material whenever recording practice is used in this type of installation.

With a dual-channel recorder the student can work independently once he has a copy of the program on his tape. He can stop at any time and rerecord any portion of the exercise without disturbing the program source. His own previous responses are erased as he rerecords, but the master program remains until rerecorded by the methods discussed earlier. The teacher may still ask the student to replay or rerecord a specific utterance in order to demonstrate and provide guidance on an individual problem.

Other equipment[9]

Program selector switch.—In laboratory systems where more than one program is played simultaneously from the teacher console or other central source, some kind of control is needed to distribute the separate programs to the various student stations. Perhaps the most commonly used device is the program selector switch, similar to a television channel selector, which can be controlled by the teacher at the console. Some installations have such switches at each student station in addition to those at the console, while another arrangement may provide them only for the student stations. The decision as to whether the teacher or student should control the selection of programs during various kinds of laboratory sessions is an important one which should be made during the planning stage, for it determines some of the major pedagogical practices during actual operation. Groupings or individual study can be accomplished under any of the three combinations, but the teacher has complete control only with the first type mentioned. Some combinations involve complicated wiring which would be extremely difficult to add after the installation is complete.

Teacher console.—This may range all the way from a simple program distribution center on up to a rather complex array of switchboard panels and racks of recorders.

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[9] Not shown on the diagram.

1. The main function is to control the movement and volume of the program(s). Program sources may consist of: (a) one or more tape playback machines (a recorder-playback machine may not be necessary unless it is used as a master recorder or for recording student responses); (b) a phonograph or disk turntable; (c) teacher microphone which can replace any other program source at any time; (d) facilities for plugging in auxiliary sources such as the soundtrack from a film projector. Loudspeaker facilities may also be included for any of the program sources.

2. Program selector switches allow the teacher to control the distribution when more than one program source is used. Distribution may be made to separate rows or to individual student stations. The teacher should be able to monitor any of the program sources through his own headphones in order to adjust the volume properly and to keep up with the progress of the program.

3. Monitoring-intercommunication switches should be arranged on the panel in the same physical order as the student stations appear in the room in order to facilitate instant location of the proper switch. Some systems afford only monitoring facilities for the teacher, while others combine this with two-way intercommunication between the teacher and each of the student stations. Various types of switches can be used to accomplish these functions. Combining several functions in each switch can simplify the number of motions needed in operating these switches. Needless to say, the teacher should not be burdened with unnecessary operational motions. Some of the complex functions can be provided for in the design of components located inside the console, affording a much simpler operation for the teacher using the control panels. In most systems, whenever the teacher speaks to an individual student or to the entire group, the program is automatically cut out.

4. In some systems, recording of individual student responses by the teacher at the console is incorporated, especially where there are no recorders provided at the student stations. This may be accomplished with one or more recorders connected to the intercom circuit. The teacher can record a brief segment of the student's responses together with the model and replay it immediately in order to demonstrate the exact error made by the student. A few seconds of guidance by the teacher could also lead to a second recording by the student in order to demonstrate his improvement, thus rewarding his efforts by specific and immediate demonstration. As pointed out earlier, if the teacher speaks to a student while he is recording, the program will be replaced on the recording by the teacher's voice. The teacher must decide whether his comment is more valuable to the student at that moment than the program. During the student playback phase, the teacher may ask the student to replay a specific short segment as a demonstration of his performance and may use this as the basis for guiding the student. With dual-channel equipment, the student may also be asked to record the segment again for another brief critique which should result in further improvement.

5. Some consoles contain stop-start switches which control the tape movement of all student recorders. These controls are usually provided for certain dual-channel recorder systems for the purpose of preduplicating the program onto student tapes during nonscheduled hours. These switches can also be used to advantage in administering group oral tests (see Testing, page 44).

6. A master power switch is a necessity in any electronic system of this type. Such a switch is sometimes conveniently located at the teacher console.

Operating Language Laboratory Facilities

Scheduling

Providing regular and frequent laboratory sessions for all foreign language students in a school can present many new problems. Finding an efficient solution depends on several factors: the ratio of student stations to the size of classes, the use of laboratory facilities by class groups or by individuals, the distance of separate laboratory rooms from foreign language classrooms, the number of foreign language classes which meet during each period of the day or week, the instructional and other scheduled duties of foreign language teachers, the number and length of periods or split-periods in the daily schedule, and the like. Scheduling of groups or individuals in a centralized laboratory, especially when teacher supervision is required, usually presents more complications for the average high school than using decentralized facilities. In any case, some readjustment of traditional scheduling practice for foreign languages must usually be made.

Although it is generally agreed that regular and frequent laboratory practice is more crucial in the beginning course, other levels should also have an opportunity for such practice, even if not so frequently. Although language laboratory facilities may be useful in other instructional areas, it is wise to be extremely cautious about spreading such facilities too thinly. It would be a different situation if the facilities were entirely adequate for optimum use by all foreign language students, but this is rarely the case.

Scheduling of laboratory sessions, in a separate room or within the classroom itself, is an important pedagogical factor in the efficient integration of class and laboratory activities. Successful results from laboratory practice will more than likely appear in proportion to the efficiency of class and laboratory coordination. Perhaps the most important part of this is the practice materials themselves.

Unless machine drill activities reinforce the materials presented and practiced in class, and vice versa, both activities can lose in effectiveness. Some shortcomings of the materials can be partially overcome if the teacher is active in guiding machine drill sessions, whether they take place in a separate room or not. A teacher working with students other than his own in a laboratory can be very helpful, but may not know the detailed background of their recent class activities. The sequential rhythm of class and laboratory sessions and the synchronization of the rate of exposure, practice, and review of materials is largely determined by the day to day scheduling procedure.

Whenever centralized laboratory facilities hinder class and laboratory synchronization, one or both of two alternatives may be considered: either to provide at least one tape recorder for each foreign language classroom, or to provide audio homework for each student in the form of specially recorded disks which can be played on home disk players. The latter alternative has many possibilities of extending student contact with the language outside the limited hours of the school day.

Operational and administrative duties

The duties related to the operation and administration of language laboratory facilities may place undue burdens on teachers unless some effective plans and procedures are initiated. If the facilities are large in number and complex in kind, one staff member should be given the necessary time and facilities to perform these duties. Special attention should be given to the judicious use of professional and instructional time in many of the minor duties which must be performed. If teachers must supervise extra laboratory sessions, is this considered as class duty or special activities duty?

Teachers should not have to prepare large amounts of recorded practice materials. Preparation of original recorded practice materials can require many hours of work for the production of a 10-minute lesson tape of good quality. Furthermore, production of a lesson tape of superior quality normally requires the cooperative planning and work of several people.

Teachers should not be expected to perform the maintenance and repair work which is required for most equipment. The effective use of student assistants for many small chores during and outside of instructional hours can further release the teacher from petty details such as preventive maintenance, so that professional time can be spent with more important matters. Some of these details are: setting up equipment or tapes for machine drill sessions and putting them away afterwards, filling out a "trouble slip" or a logbook which locates and identifies for the technicians those pieces of equipment which need repair, bulk erasure of old tapes, duplicating extra lesson tapes (file copy of master tapes, dual-channel student tapes, disk to tape, tapes on loan, etc.), cleaning the tape recorder heads (this should be done after every 8 to 10 hours of use) and occasionally demagnetizing them, cleaning headphones, keeping current a card file of the recording library, and entering proper identification information on the boxes and reels of lesson tapes (lesson name and number, length in minutes, tape speed, etc.).

Teaching techniques

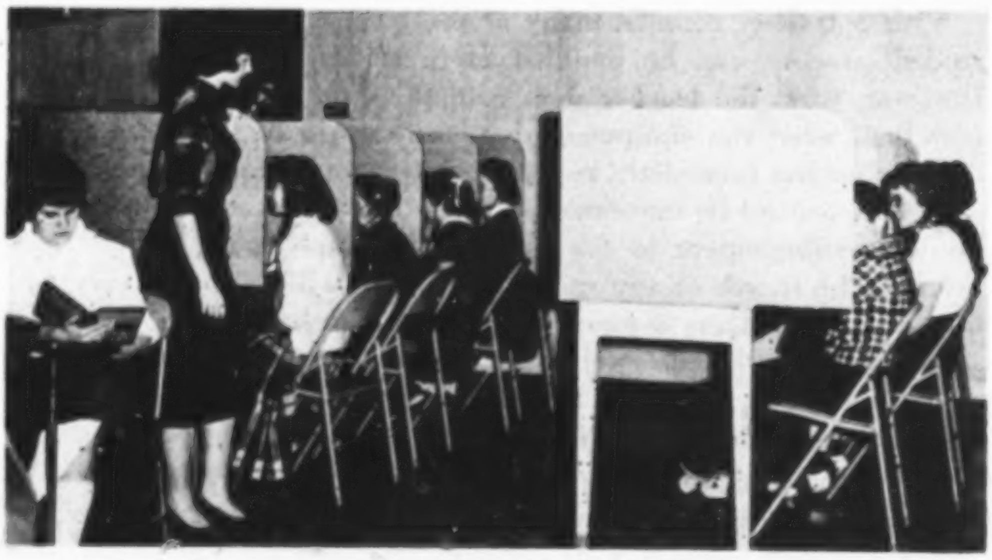
Any type of language laboratory equipment presents many useful opportunities for teachers to develop a variety of techniques. Some will be tried and found successful; others will be abandoned. The purpose of this section is to suggest some of the techniques and procedures which have been found useful.

In sharing the dual role with recorded material (whether it be the teacher's own recorded voice or not) the teacher should remember that he is master of the master program. A lesson tape should not be allowed to play on and on if most of the students are having difficulties with the material. Either the material is too difficult or the students have not had sufficient basic practice with it in class. Even with carefully planned tapes (including many so-called "automated" tape lessons) one cannot always predict what the reactions of different groups will be. The teacher, on the other hand, can respond instantly to the immediate learning needs of the students. Some exercises may require many more repetitions for overlearning than others. The necessary length and sequence of these can be predetermined to some extent in a well-planned tape lesson, but not so accurately as genuine programed materials for auto-instruction which are still in the experimental stage. The teacher's sensitivity to the students' immediate needs should compensate for many of the inadequacies of recorded practice materials.

During the first laboratory sessions, the teacher should not forget to give student orientations not only on the operation of the equipment, but also on the reasons for laboratory practice and on the kinds of procedures that will be used in practice sessions.

A teacher who has not had considerable experience with language laboratory instruction would do well to use only one program source at a time. To teach effectively with more than one program source is extremely demanding. It is even doubtful that one can really teach effectively with several simultaneous program sources on the same level of instruction, to say nothing of trying to do it with different levels and with different languages, except in the role of "language disk jockey." A teacher should not try to perform more simultaneous activities than he can handle comfortably and with skill. Otherwise, confusion and frustration will hamper both teacher and students.

Variety is a necessity in machine drill, especially since a certain



Courtesy California State Department of Education

A small laboratory in the classroom can provide for the simultaneous grouping of different activities.

amount of saturation practice is necessary for the memorization and overlearning required in developing automatic response habits. Each student should be actively involved and challenged during machine drill sessions. It is important to keep alert for signs of fatigue among the students. Changing activity or pace should not be delayed if boredom or fatigue is detected. Boredom may be caused by material that is too difficult, too long, monotonous, or lacking in challenge. It can also occur from a lack of full integration of class and laboratory activities. It may even occur as a result of poor audio quality in the recording or in the equipment. Occasionally changing the listening medium from headphones to loudspeaker can provide a helpful variation.

Even though only a tape recorder or a few student listening stations may be available, the teacher can use these facilities profitably.[10] For example, the teacher may walk around the room among the students correcting inadequate responses as they are made, or he may at times divide the class into groups. One or more groups can engage in listening practice with headphones, while the teacher conducts oral drills or conversation practice with the others.

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[10] For detailed examples of techniques see O'Connor; also Evangeline Galas, and Filomena Peloro. *HRS Manual for Teachers and Parents*. Frederick D. Eddy, ed. Baltimore, Md.: Ottenheimer Publishers, 1960. 61 p.; Gregory G. LaGrone, Andrea Sendón McHenry, and Patricia O'Connor. *Español: Entender y Hablar*. Teacher's ed. New York: Holt, Rinehart and Winston, Inc., 1961. Vols. 1, 2. 304 p.; 268 p.

With a teacher console, many of the physical motions involved in guided practice can be handled more efficiently and conveniently. However, what the teacher does with the equipment is more important than what the equipment does for the teacher. At the console, the teacher has immediate access to the recorded program source and can easily control its movement. He also has the choice of giving any needed reinforcement to the program by substituting for it at any instant. The length of any such interruption will naturally vary with the situation, but any comments or explanations during machine drill should normally be extremely brief (not more than 30 to 60 seconds). Even in class, it would be better to avoid long explanations during the early audiolingual practice sessions.

Some language laboratory systems provide monitoring facilities at the console so that the teacher may listen selectively to individual students as they respond. This gives the teacher a convenient and swift means for evaluating each student's performance. A daily monitoring chart for each group can facilitate this evaluation if there is enough space in each box for the teacher to jot down brief notes or symbols about each student's performance. On some monitoring panels, it is possible to place a cardboard template over the switches so that each student's name appears under the switch corresponding to his booth or station, thus providing the teacher with a rapid identification of each switch.

What the teacher does with the notes made on the monitoring chart is very important. If the student is to receive full benefit from these, he should know as soon as possible how well he has been performing. Correction of errors noted should be made at the earliest possible moment in order to be most effective. Learning theory indicates that, for optimum effect, a confirmation or correction should be made within a few seconds after the overt response. The recorded program may provide the confirmation response, but the evaluation and correction of individual student responses cannot be made by the machine. This is especially true for correction of pronunciation errors. Errors in structure can be perceived and corrected more readily by the student himself through the confirmation response of the program.

There is some opinion that monitoring carries with it an emotional connotation of eavesdropping. This need not be a problem as long as good teacher-pupil rapport is maintained in an atmosphere of mutual respect and understanding. The pupils know that any of their responses are likely to be heard by the teacher, even though they may not always know which specific responses are heard. This should not cause any more of a problem than student responses made in normal class situations.

If the console has only one-way monitoring facilities, the teacher may have to wait until after the machine drill session in order to follow up the correction of errors noted. Otherwise, the teacher must leave the console and walk to the student's station. Some systems provide monitoring outlets at each student station so that the teacher may go from student to student and plug in his headphones to hear both program and student responses.

Whenever the console is provided with two-way intercommunication facilities, the followup can be made immediately by the mere flick of a switch. These facilities make many more individual contacts possible in a given period of time, provided that the teacher makes full use of these facilities by diligent attention to student responses. Within the space of a few seconds, a student response can be heard and corrected. In this way, spotchecking can provide rewarding reinforcement for several students within the space of one minute. Even when there is no error in a student's response, the teacher should not forget the value of a frequent remark of encouragement, for the student needs

Courtesy Southwest High School, Atlanta, Ga.

The teacher at the console corrects errors as they are made.

to know when he has been correct as well as when he has been incorrect.

The teacher must be judicious about the timing of his corrections. For example, correcting a student before he has completed his response can have a damaging effect. One must also decide whether the correction of a minor error is worth causing the student to lose contact temporarily with the program material which may be more important to him at that moment. This is especially crucial when the student is recording the program and his alternating responses.

Particularly in the coaching of pronunciation, the teacher must be ready to provide concise suggestions on how to produce certain sounds which may be difficult for the individual student. Most pronunciation errors can be avoided by sufficient listening practice and imitation practice, but individual differences among students must be recognized. Some students have little difficulty imitating correctly, while others may find persistent difficulties in producing certain sounds or combinations of sounds. The student may or may not know that his efforts are incorrect. Even when he knows that his version is incorrect, he may not know what to do in order to correct it.

Student misperception of sounds can usually be corrected more efficiently by demonstration than by explanation. The teacher can first point out the error by giving the model again and asking for another imitation. If this fails to produce an improvement after a few tries, a further demonstration can be made together with a brief hint on the proper position of the tongue or lips.

Exaggeration or distortion of the model by slowing it down too much should be avoided. The sound or sounds should be returned to their normal and natural position in the utterance as part of the demonstration. Recording of the model and the student's response may offer a more forceful and convincing demonstration.

Discretion must be used in the amount of time given to coaching a student so that others are not deprived of an opportunity for individual teacher guidance. One can always return to help the student later. In many cases, the student will have improved anyway after the initial critique.

The length of laboratory sessions may vary considerably according to the needs of the school, but one should consider the fact that a daily session of 20 to 30 minutes is more likely to produce effective results in audiolingual proficiency than the same amount of time concentrated into one or two sessions per week. The length of individual lesson tapes may vary considerably, depending upon the number of repetitions of each item. Much time and effort can be saved in the stopping and rewinding of a lesson tape if enough repetitions of each

Courtesy Cedar Rapids High School, Cedar Rapids, Iowa

The language laboratory can provide for individual differences.

item are included. The format of a lesson tape should be skeletal in design, so that almost 100 percent of the tape should be reserved for the actual practice material itself. For easier presentation and control by the teacher, a lesson tape for audiolingual practice should not normally contain more than about 15 minutes of recording and preferably much less. Recordings of cultural and literary materials for advanced courses are, of course, entirely different in format and length.

The use of English in class and laboratory should be avoided as much as possible. There are special occasions when it is more efficient for the teacher to give an explanation or instructions in English. A few minutes could be set aside during a class period for clearing up any misunderstandings or misconceptions, but the foreign language should dominate throughout. A special section of this bulletin contains lists of terms and expressions for language laboratory use in the hope that some of the technical terms which are quite difficult to locate will be readily available for use by the teacher in conducting laboratory sessions in the language being taught.

The cycling and recycling of the various types of learning activities and materials should be planned ahead of time but should be flexible enough to permit special variation when the situation requires it. A course which rigidly demands that so many pages of the text be covered within a specified time regardless of the learning situation is not likely to produce effective results in foreign language instruction.

Testing

Providing facilities for group testing of the listening and speaking skills is one of the major contributions of the language laboratory. Unless these skills are tested and appraised frequently, much of the effectiveness of instruction will be lost.

In addition to daily appraisal of student performance in class and laboratory sessions, weekly or monthly quizzes and tests should be provided. Listening comprehension and aural discrimination tests are naturally much easier to prepare, administer, and grade than speaking tests. Recent articles in professional journals and books on the newer methods and materials contain many useful detailed suggestions on testing materials and procedures.

Oral production tests can be given individually, but the administration and grading of such tests for groups present a difficult problem. Any program source can present test stimuli, but recording facilities are required in order to store the individual responses for grading later. The number of students that can be tested simultaneously depends on the number of student recording channels that are available. If rotating groups are tested one after another, only those being tested should be present in the room in order to keep testing conditions equal. An oral test should not take more than a few minutes.

Test material can be made from many of the drill patterns that have been practiced. Types of test items should include much more than mere questions and answers. Utterances can be presented for mimicry, commands can be asked for, directed dialog items can be presented, changes or substitutions can be made in model utterances, and oral responses to pictures can be made. Instructions must be clear and should be given, including an example, before each type of test item is presented. The test items may be prerecorded without pauses so that the teacher can stop the recorder after each item is presented and judge the amount of time required for each response by the group. Or the spaces for responding can be incorporated in the test tape. The timing of response spaces (including reaction time) should be pretested before recording. Once proper spacing is made, all students will have the same amount of response time, which is a factor of the test.

The subjective element in grading speaking tests is a problem, but variables can be minimized in at least two ways. First, it should be decided ahead of time which element of each test item is to be graded: pronunciation, fluency, or grammatical structure. Even within each of these, it is possible to grade only one or two elements of each response, such as a particular sound combination. Grading with a number system, such as 1 to 5, has been used satisfactorily, although some prefer to use a three-point scale of "good," "acceptable," and "unacceptable."

A second method of reducing subjective variables is that of having two separate teachers grade the student tapes and give a composite grade of the two evaluations. It may be preferable for the grading to be done separately by each teacher.

Language laboratory facilities which provide an intercommunication system without student recorders can be used to some extent for speaking tests. One procedure might be to present a large number of test items which are organized into small units. Each unit of five items may contain test items similar to the others in form and difficulty, but different in terms of words. All students would be expected to respond to all test items but would be graded on only one unit. The teacher would listen to one student and grade his performance for one unit, then proceed to another student for the next unit and so on. In this way, all students would be responding without knowing which unit of their responses was graded.

With student recorders in some language laboratory systems, the student tapes may be stopped and started by a remote-control switch at the console. In this way the teacher can control student machines so that only responses will be recorded and no significant pauses will appear between them on the student's tape. Each student should identify his own tape by recording his name at the beginning or end of the test. The student test tapes, which may be on small reels, can either be collected for later replaying and grading or they may even be played back one at a time through the intercom system for grading. Another possibility is that of dubbing all the responses onto one reel at the console as they are replayed through the intercom system. The threading and rewinding of large numbers of reels can be rather time-consuming. The composite tape of responses allows the teacher to grade the entire group in one operation. There will be no delay in waiting for the responses for they should follow each other without interruption, although the teacher can easily stop the machine and replay any portions which need further study. In one minute of playback time, the student tape could contain as many as 10 to 15 responses.

The above procedure can also be administered in laboratories without remote-control facilities provided there is a pause lever on the student recorders. With this equipment, the student himself would be responsible for starting the tape movement only when he is responding. Although this is quite feasible and simple, it does not afford the same uniformity of test conditions as the remote-control operation.

Development of new standardized foreign language tests in five languages for schools and colleges, including listening and speaking tests, is already under way. It is expected that this effort will do much towards eliminating some of the difficulties presented by the need for testing the speaking and hearing skills by group examination. These tests should be particularly useful in evaluating the results of language laboratory learning.

There is still great need for the development of a simple device for recording group oral tests in schools which do not have individual student recording facilities.

Evaluating the use of the language laboratory

In order to achieve the most effective results from language laboratory facilities, teachers and administrators will want to continue an active program of evaluation of the use of the equipment in instruction. This may seem more difficult during the first year of operation, but one can begin to solve some of the emerging problems during this period better than at a later date.

This self-study can begin with an examination of the contribution made by the language laboratory to the total foreign language program. Since results do not depend only on the equipment, the language laboratory must be considered in its relation to the effectiveness of the entire teaching-learning process. Many questions may be asked concerning ways for improving the use of the language laboratory.

1. Is emphasis being given in the beginning course to the listening and speaking skills, with gradual progression to reading and writing? Are the audiolingual skills maintained and developed by increasing the difficulty of the material in the courses which follow?

2. Are the basic materials used in class for the first-year course also practiced with recorded models during laboratory sessions? Are students required to memorize these materials? Do the recordings present a variety of native voices as models for student practice?

3. Do all foreign language students have an opportunity for regular and frequent practice with the recorded materials? Is the language laboratory used in both instructional and study situations? Are the listening and speaking skills tested frequently?

4. Are learning sequences followed through in laboratory sessions? Do students have opportunities for both listening and listening-speaking practice? Do students also practice a variety of pattern drills related to the mimicry practice? Does the teacher consolidate and exploit the skills learned in laboratory sessions by recombining the practice materials into new situations during other activities and later on in advanced courses. Is the equipment also used for presenting literary and other cultural materials?

5. Do the students show an active and continued interest in laboratory sessions by their alert responses to the practice material? Do they attempt to practice the language outside the formal class and laboratory sessions? Is there noticeable improvement in the spoken responses of students? Do they show a higher degree of confidence in using the spoken language? Can the students understand a variety of native speakers within the limits of familiar vocabulary and structures?

6. Have all the teachers using the language laboratory had more than a few hours of inservice training and practice with the equipment? Has the school used the services of the State foreign language supervisor? Do all the foreign language teachers have a recorder or playback machine in their classrooms for regular use? Are the teachers permitted to use this equipment at home for reviewing, evaluating, and preparing materials of various kinds or even for improving their own language proficiency? Are any of the teachers overburdened with chores related to the use of language laboratory equipment? Have the teachers developed confidence in their use of the equipment? Do the teachers continue to work with the students while the equipment is presenting practice material?
7. Have mechanical failures, poor quality of sound, or administrative problems related to the equipment reduced its effectiveness as an aid to instruction?

Study of these and other questions which will occur to teachers and administrators should help lead the way to an improved foreign language program through the process of continued self-evaluation which is the mark of the professional educator. The language laboratory has a great potential for contributing to more effective teaching and learning. This is a challenge for the school to obtain the best possible use from its investment of time, money, and effort.

Language Laboratory Terminology

The following list of terms is presented to help teachers understand some of the technical and semitechnical terminology related to the use of electromechanical equipment in foreign language instruction. It is not intended to suggest that teachers should become electronics experts, but rather that they be familiar with some of the basic terms in order to communicate adequately with technical personnel at various stages of planning and operating language laboratory facilities.

Adaptor, dual input—Small nonelectronic mixer with standard plug and two jacks, making it feasible to record sound-on-sound (for example, combining the output signal for a tape recorder with that of a microphone so that both are recorded on a second recorder).

Alignment, head—Adjusting the record-playback head so that the angle of its gap is exactly perpendicular to the tape as it moves past. Misalignment of the head azimuth or head-gap angle results in poor sound.

Amplifier, power—Amplifier designed to boost signal energy sufficiently to operate a loudspeaker. *See also* preamplifier.

Audioactive—Term sometimes used to refer to listening-speaking practice. Also used to describe facilities in which students are equipped with headphones, preamplifier, and microphone by means of which the student's voice is amplified and carried simultaneously to his own headphones as he speaks. Also called "activated headphones" or "activated microphone."

Audiolingual—New term which replaces "aural-oral" and refers to that element of language (sound) which is spoken in normal everyday conversational interchange as differentiated from language as gesture or as writing.

Audiopassive—Term sometimes used to refer to listening practice when no oral response is expected. Also used to describe facilities in which students are equipped with headphones only.

Audiowiring—Cables through which the sound is transmitted as compared to power wiring which carries the electrical current. Unless shielded cables are used, hum and cross-talk interference may occur.

Automatic shutoff—Special switch on some tape recorders which automatically stops the machine when the tape runs out or breaks. Also called automatic cutoff.

Balance—Relation between high and low frequency tones of a recording. Also the relation between the levels of two audio signals.

Bias—High frequency current fed into the recording circuit to eliminate distortion during the recording process. Also performs function of erasing tape just before it passes the recording head.

Binaural recording—Made with two microphones (a few inches apart) recording simultaneously on separate tracks on the tape and played back later through earphones each side of which carries a separate signal.

Booth—Sound treated cubicles for student stations in language laboratories. The acoustical partitions are usually on three sides. The front partition may be a collapsible, sliding, or folding panel or it may be made of transparent material such as plexiglass.

Braking mechanism—Apparatus on a tape recorder which stops the motion of the reels. If not properly adjusted, tape spillage, stretch, or breakage may occur.

Bulk eraser—See eraser, bulk.

Capstan—Rotating spindle or shaft which draws the tape across the heads at a constant rate of speed on both recording and playback. Operates in conjunction with a rubber pressure roller.

Channel—Audio information or signal which is carried or transmitted over a specific path or track.

Channel selector—See switch, program selector.

Channel, dual—Usually a stereophonic (dual-track) recorder adapted so that two separate channels (program signal and student signal) are recorded simultaneously or sequentially on two separate tracks of the same tape. Special switches and circuitry allow the student channel to be rerecorded without erasing the program channel.

Channel, multi- —When applied to program source, this means that several sources can be transmitted simultaneously to selected student positions in the language laboratory network. When referring to a recorder, it means that several different signals or channels are recorded or played back simultaneously but separately through a multitrack recorder.

Clean—When applied to sound, this means undistorted and noise-free reproduction.

Conduit—A kind of rigid or flexible metal pipe or tubing which contains the wires that conduct the signals or current.

Console, teacher—Teacher's control center where a distribution panel controls the transmission of program signals, and may include facilities for two-way intercommunication with individual students or an entire group.

Counter, index—Similar to an odometer (mileage indicator in automobiles) which indicates the relative amount of tape that has run past the heads. Also called digital counter.

Cross-talk—Interference of one channel with another. Leakage of sound in a system as when one student hears an additional program signal or another student through his headphones.

Cycles per second (cps)—Unit used to measure frequency, or "pitch," of any sound.

Decibel (db)—Unit for measuring sound intensity or "volume," usually expressed in ratio form, plus or minus, in relation to another sound intensity.

Dialog—Brief conversation involving two or more persons in a specific situation. In audiolingual learning the short utterances of the dialog should contain authentic speech patterns which are based on a careful selection of the most common grammatical structures and vocabulary of the spoken language. These utterances serve as models for student practice and should be memorized for optimum results.

Demagnetizer, head—See head demagnetizer

Distortion—Improper reproduction of the original sound due to any change that takes place as the signal travels through the electronic system. Distortion of sound reduces its clarity.

Distribution panel—Component of the console which provides for distributing separate programs to special groups or individuals at the student stations.

Dual-track head—See head, dual track

To dub—Combining two or more signals into a single recording. *See also* sound-on-sound.

To duplicate—Copy a recording from another recorder. The reproduction is also called a "dupe." Some loss of quality occurs each generation down from the original.

Dynamic range—Ratio between the softest and loudest sounds a recorder can reproduce without undesirable distortion. Usually measured in db's.

Ear cushions—Rings of soft rubber or plastic foam set around the earphones to minimize the interference of outside sounds for the listener.

Earphones—See headphones

To edit—Change the sequence of a tape recording or to alter any portion of it by deleting sections or adding new material.

Electromagnet—Device which becomes magnetized when connected to electric current. The recorder head is an electromagnet energized by the current passing through an amplifier from the microphone.

Electromechanical—Refers to devices whose functions are accomplished by interrelated mechanical and electrical (or electronic) processes. Sometimes used to denote any of the audio or audiovisual components of language laboratory facilities, such as tape recorders, headphones, microphones, and so on.

Equalization—Either boosting or decreasing the intensity of the low, middle, or high tones of a recording during recording or playback. This serves to correct deficiencies in the recording system and to provide more natural tonal balance.

Eraser, bulk—Device for erasing an entire reel of tape in a few seconds. It contains a powerful electromagnet which neutralizes the magnetic patterns on the tape.

Erase head—See head, erase.

Eye, magic—Type of tube used to indicate volume level. As the sound increases, the edges of the bright wedge-shaped segment seen in the tube narrow to a fine line.

Fast forward—Tape movement control which permits fast winding of the tape to facilitate location of a specific portion which has not yet been played. The speed of this movement may vary considerably from one model recorder to another.

Feed reel—See reel, supply

Feedback—Squealing or howling sound caused by the sound from a loudspeaker being picked up by a microphone connected to the same amplifier. Not to be confused with simultaneous audio feedback with headphones which is quite different and simply refers to the student's voice which is fed back to his own headphones.

Feed through—Spillover of portions of the signal from one track to an adjacent track.

Fidelity—Degree of the exactness or faithfulness with which any sound is duplicated or reproduced as compared to the original sound.

Flat response—Ability of an audio system to reproduce all tones (low and high) in their proper proportion. A sound system might be specified as having an essentially flat response, plus or minus two db. from 75 to 9,000 cycles per second.

Flutter—Kind of distortion in which short and rapid variations in volume and pitch are caused by any changes in the constant speed of the tape movement.

Frequency—Pitch of a sound as determined by the number of cycles per second.

Frequency range—Range between the highest and lowest pitched sounds which a recorder or sound system can reproduce at a usable output, or volume, level.

Frequency response—This is the output level of a recorder or sound system over a specific range of frequencies which is usually charted in the form of a curve. It is more specific than "frequency range" and includes the plus or minus decibel rating which shows the "flatness" of the response or deviations above or below an average level.

Full-track head—See head, full-track

Gain—Ratio between the input and output levels of sound equipment. Gain is increased by means of an amplifier.

Gap—Minute distance between the poles of a recording head. The shorter the gap, the higher the frequency range of the recorder can be at a given tape speed.

Head—Small ring-shaped electromagnet across which the tape moves. This provides the energy which magnetizes the iron oxide coating on the tape into special patterns.

Head, dual-track—Head having two separate pole pieces each, each covering about half the width of the tape so that recording or playback of one or both channels (separately or concurrently) is accomplished with the tape moving in a single direction. Can be used for single-channel, dual-channel, or stereophonic recording. Also called two-track, twin-track, or double-track.

Head, half-track—Head which records and plays back about one-half of the width of the tape. It can be reversed to obtain use of the second half. This type is used for single-channel recorders.

Head, erase—Electromagnet which erases or rearranges any magnetic pattern on the tape before a new recording is made.

Head, full-track—Head with a gap covering almost the entire width of the tape. Also a single-channel recorder.

Head, playback—Electromagnet which converts the signal on the recorded tape into electrical impulses which are then amplified and reproduced as sound by a loudspeaker or headphones.

Head, quarter-track—Head having two pole pieces which cover the first and third quarters of the tape. The second and fourth quarters are recorded by turning the tape over. Many stereophonic recorders now use this type.

Head, recording—Electromagnet which converts the amplified audio information from the microphone into a succession of magnetic fields that rearrange the magnetic patterns of the iron oxide particles on the tape as it passes the gap. The same head is often used for playback.

Head alignment—See alignment, head.

Head demagnetizer—Hand-held electromagnet used to neutralize the unwanted residual magnetism built up and retained in recording heads.

Headphones—Most language laboratories use crystal or dynamic headphones. This is often the weakest link in the audio system, but improved designs are becoming available. Many need tropicalized treatment in areas of high humidity and temperatures. "Activated" headphones is another term for "audioactive."

Hiss—Noise which may originate in the amplifier or from the tape itself. Hiss will increase if heads are not demagnetized at intervals and will be recorded on the tape even during playback.

Hum—Low-pitch background noise caused by poor shielding or mismatching of impedances. It may be "60-cycle hum" picked up from a.c. electrical power wires. Three-pronged polarized plugs may also help prevent this.

Immediate playback—New development in recorders for language learning which can play back each segment (variable lengths) of program-stimulus and student-response immediately or instantaneously after the student response without rewinding the tape or reversing its direction.

Impedance—Resistance in a circuit or component to the flow of alternating current which is rated in ohms. Output and input impedances of two or more connecting components must be matched quantitatively. Impedance is usually called "high" or "low."

Inches per second (ips)—Tape speed is measured in inches per second.

Index counter—See counter, index

Informant—Native speaker who serves as a model for the student, either through recorded practice materials or in person.

Input—Connecting device, such as a jack, which carries the incoming signal. Also the incoming signal itself.

Intercommunication system—Usually a two-way intercom network between the teacher console and each student station, which requires a special amplifier and connecting audio wiring.

Iron oxide—See oxide

Jack—Receptacle for a plug connector which leads to the input or output circuit of a tape recorder or other audio device. Standard phone plugs and jacks are used in most language laboratory systems. Special jack boxes afford several outlets so that several headphones may be plugged in together.

Level—Volume of sound or the signal, such as "recording level."

Level indicator—Device on the tape recorder to indicate the relative level at which the recording is being made, and to serve as a warning against under-recording or over-recording. It may be a neon bulb, a magic eye, or a VU meter.

Magic eye—See eye, magic

Master—Term used to designate a device which has control over several others or produces the original taped material. Often applied to tape, program, console, switch, duplicator, etc. The term "slave" is used sometimes to designate another device controlled by a "master."

Master power switch—See switch, master power

Microphone—There are several types, such as dynamic and crystal. They may also vary as to the direction from which sound is picked up (omnidirectional, unidirectional, etc.). Methods of use include hand-held, gooseneck (mounted on flexible spiral cable), desk stand, lavalier (hung from neck), and headphone-boom.

Mil—One-thousandth of an inch. Tape thickness is usually measured in mils.

Mimicry-memorization—Practice in which the student memorizes model utterances through repeated imitation.

Mixer—Device which permits the combining of two or more input signals at the same time into a recorder or audio system at the level desired.

Model—The voice or voices, preferably of native speakers, which are recorded as a guide for student practice. Also the utterances or basic material of each lesson which appear in dialog form, narrative form, or in isolation and are used as models for the students.

Monaural—Recording made with one or more microphones but which is recorded on only one track.

Monitoring—Listening to the sound signal as it is being recorded or played back. A separate playback head on some recorders permits listening to the tape as the recording is made. Also listening to students through the intercom during listen-speak practice or during record and playback of student practice responses.

NARTB curve—Standardized playback equalization curve set by the National Association of Radio and Television Broadcasters (the National Association of Broadcasters).

Noise, recording—Noise other than the program signal which may appear in a recording as a result of improper equipment or procedures. Extraneous background noise may also be picked up by sensitive microphones.

Ohm—Practical unit of electrical resistance, being the resistance of a circuit in which a potential difference of one volt produces a current of one ampere.

Outlet—Terminal from which a.c. (alternating current) electric power is obtained.

Output—Signal delivered from any audio device. Also a jack or connector which feeds the signal to another piece of equipment.

Overlearning—Learning of material through several combinations of repetitions to the point of saturation or until an automatic or reflex-like response habit is achieved.

Overload—More volume than can be handled adequately without distortion by the equipment, either on record or playback.

Oxide—Microscopically small particles of ferric oxide dispersed in a liquid binder and coated on a tape backing. These are magnetized and demagnetized in recording and erasing. These particles often shed like powder onto the heads, which should be cleaned after several hours of use.

Patch cord—Connecting cable with a plug on each end for conveniently connecting two pieces of audio equipment.

Pattern drill—Exercise with basic or model utterances in which several small and consistent changes in sound, form, order, and vocabulary are made repeatedly in order to gain control over the specific grammatical structure involved.

Pause lever—Feature of some tape recorders making it possible to stop the movement of the tape temporarily without switching off the electronic functions.

Pilot light—Small lamp or bulb which lights up when a piece of equipment is turned on or is engaged in a specific operation.

Playback—Expression used to denote reproduction of the sound previously recorded.

Playback head—*See* head, playback

Plug—Circuit connector, such as a standard phone plug, which is inserted into a jack.

Power cord—Cord for connecting a recorder to a.c. electric current at an outlet.

Power switch—*See* switch, master power

Preamplifier—Amplifier designed to raise very weak signals, such as those from a microphone or magnetic head, to a voltage level high enough for a power amplifier.

Pressure pads—Small felt pads mounted on spring-brass arms which hold the tape in close contact with the heads during record and playback.

Pressure roller—Rubber-tired roller which holds the tape tightly against the capstan to insure constant tape speed and prevent slippage.

Print through—Transfer of the magnetic field from layer to layer of tape on the reel during storage resulting in "echo" sounds on portions of the tape.

Program—Lesson unit or other recorded practice material which is played from the console or a simple recorder and received by the students at their stations.

Program Source—Device which reproduces or plays the recorded practice materials from the console or from some other location and transmits them to the student stations.

Quarter-track head—*See* head, quarter-track

Recording, binaural—*See* binaural recording

Recording head—*See* head, recording

Recording noise—*See* noise, recording

Reel, supply—In a reel-to-reel (two reel) tape deck this is the reel which supplies the tape as it is being recorded or played back. Also called feed reel.

Reel, take-up—Reel on a tape deck which receives the tape after it passes through the head assembly in recording or playback.

Reinforcement—Knowledge by the student that his response was correct or incorrect to reinforce his learning. Optimally this should occur immediately after the response and may appear as a correct model or confirmation response on the recorded program.

Remote-control—Recording device whose tape movement can be stopped or started from a distance by means of special switches and electrical relays. The control is usually located at the teacher console. In some systems the students also have such switches to control their own recording equipment, which is located in a special cabinet either in the same room or in an adjacent room.

Rewind—Returning the tape from the take-up reel to the supply reel after recording or playback. This is usually done at very high speed and is accomplished by means of a special button, knob, or lever.

Schematic diagram—Diagram that indicates by symbolic representation the connections and functional components of an electrical device, such as a tape recorder.

Self-monitoring system—Equipment which permits the student to hear his own voice performance either simultaneously through "activated" headphones or delayed, by means of playing back his recording.

Shielding—Enclosing wires or magnetic heads with metal to prevent stray currents from reaching them and causing hum. Most shields are "grounded."

Signal-to-noise ratio—Ratio between the loudest, undistorted tone recorded and reproduced by a recorder and the noise inherent in the recording system itself. Normally measured in db's.

Slave unit—Tape drive on which blank tapes are run for the purpose of simultaneously duplicating several copies of a master tape.

Solenoid—Electromagnet which forces a piston to move by magnetic action when a current is introduced. In some tape recorders a switch introduces current into a solenoid which activates one of the mechanical operations.

Solid-state electronics—Term used to describe a special type of small electronic component, such as transistors, which have no lighted or heated filament and which can be used instead of vacuum tubes in most electronic circuits.

Sound-on-sound—Adding a new signal to a prerecorded signal as it is being played. Both signals are mixed and recorded together on a single track of another recorder. *See* dubbing.

Speaking readiness—Listening practice for aural discrimination and comprehension which allows the student to become thoroughly familiar with the sounds and meaning of recorded practice material before attempting to engage in listening-speaking practice with the same material.

Spindles—Posts on which the reels of tape are held on a tape recorder.

Splice—Joint between two pieces of tape made with splicing tape over the shiny side.

Splicer, tape—Device which holds the tape while special blades are lowered to cut and then trim it after splicing tape has been secured across the joint.

Splicing tape—Special adhesive tape (non-magnetic) which will not ooze. Ordinary cellophane tape should not be used for splicing.

Squeal—Noise caused by worn or dirty pressure pads or by tape which lacks special lubrication treatment.

Stereophonic—Recording in which two microphones are placed some distance apart and fed simultaneously into two separate channels. Playback gives a dimensional effect if two loudspeakers are placed the same distance apart for reproducing the two signals.

Student position or station—Desk, table, or booth where student equipment is located for receiving a program and practicing with it.

Supply reel—*See* reel, supply

Switch, master power—Switch which turns on or off the electrical power for an entire system. An important safety feature for any language laboratory.

Switch, program selector—Any control which permits the student or teacher to change from one program source to another.

Switch, talk-listen—Switch used by the teacher at the console for monitoring student performance and for talking to individual students through the intercom system.

Tape, blank—Tape that has not been recorded. Also called virgin or raw tape.

Tape, leader—Special nonmagnetic tape attached to ends of the tape for identification and protection of the tape ends.

Tape, magnetic recording—Special plastic tape which is coated with iron oxide particles that are magnetized in the recording process. The magnetized pattern remains until erased or demagnetized. The plastic backing may be acetate or polyester base.

Tape, prerecorded—Tape which has a program already recorded on it or duplicated before use.

Tape cartridge—Magazine or hard plastic case containing a reel (or two) of tape which is placed on a recorder without threading. Reel-to-reel cartridges allow the tape movement to be controlled in either direction. Endless-loop or continuous-loop cartridges can continue playing indefinitely but do not permit rewinding at will.

Tape deck—See tape transport

Tape guides—Grooved guide mounted at each side of the head assembly to assure that the tape passes in proper position over the heads.

Tape lifter—Device used to lift tape from contact with the heads during fast winding of the tape to avoid destructive wear of pole pieces.

Tape playback—Tape reproducer unit for playback only of prerecorded tapes. It is not equipped to record.

Tape recorder—This is a tape unit, sometimes called a recorder/reproducer, which can record and play back. It contains recording and playback amplifiers and heads. The heads may be full-track, half-track, dual-track, or quarter-track.

Tape recorder, monaural—Standard tape recorder which uses a single-channel system (one track at a time). Also called monophonic as opposed to stereophonic.

Tape speed—Tape moves past the recording head at a predetermined speed measured in inches per second (ips). The faster the speed, the better the audio quality or frequency response. Standard speeds are 1⅞ ips, 3¾ ips, 7½ ips, 15 ips, and 30 ips. Most standard recorders use 7½ ips and 3¾ ips. The *Purchase Guide* recommends 7½ ips for language laboratory use.

Tape spillage—Improper threading or poor adjustment of braking action or tension may result in spilling of tape.

Tape splicer—See splicer, tape

Tape transport—Mechanism which moves the tape past the heads. It includes head assembly, motor, and controls for tape movement. It does not normally refer to the electronic components which together with the transport mechanism constitute a tape recorder. Also called a tape deck or tape drive.

Threading slot—Slot in head assembly cover-plate into which tape is slipped in threading up the reels to prepare for recording.

Track—Magnetized area on a tape laid down by the head in recording.

Track, full- —Track which occupies almost the full width of the tape and consequently is a single-track recorder.

Track, half- —Track which occupies about half the tape width. Sometimes erroneously called dual-track since a second track can be recorded by turning the reels over and moving the tape in the opposite direction.

Track, quarter- —Track which occupies about one-fourth the tape width. Tracks may be used individually or in pairs.

Also called four-track since two tracks (1 and 3) may be used for stereophonic recording, and the other two tracks (2 and 4) may also be used together in the opposite direction.

Utterance—Group of speech sounds which constitute a meaningful unit, whether in the form of a complete sentence or not. Partial utterances for practice are usually segments (5 to 6 syllables) of a complete utterance which are often meaningful by themselves. They are practiced by gradually adding them together until the original complete utterance has been reached.

Volume control—Control knob which varies the output of an audio device. Also a potentiometer which allows any student to adjust the volume of the incoming program, even when equipped with headphones only.

Volume indicator—*See* level indicator

VU meter—"Volume unit" meter which indicates the relative levels of the various sounds being recorded or played.

Watt—Unit of electrical power. Usually used to denote the output of speakers or the amount of current needed to operate a device.

Wow—Distortion or change in volume or pitch of sound caused by slow variations in tape speed.

Glossaries of Language Laboratory Expressions and Terms

At the request of State foreign language supervisors, the glossaries which follow have been prepared as a service to teachers who wish to continue speaking the language while conducting the various activities related to machine drill. These terms are intended to provide a more or less uniform reference of expressions needed in teaching as well as technical terms relating to equipment. It is expected that this initial effort will encourage teachers to refine the list and make additions as experience increases.

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FRENCH

Instructional procedures

Answer! **Répondez!**

Answer the following questions in French. **Répondez aux questions suivantes en français.**

Compare your *answer* with that of the master tape. **Comparez votre réponse à celle de la bande.**

Begin! **Commencez!**

Please sit in *booth* number two in the

third row. **Veuillez vous asseoir dans la cabine numéro deux au troisième rang.**

Close your books. **Fermez vos livres.**

Close your eyes. **Fermez les yeux.**

Compare your pronunciation with that of the master tape. **Comparez votre prononciation à celle de la bande.**

Correct your errors. **Corrigez vos fautes.**

Correct yourselves. **Corrigez-vous.**

Follow the directions. **Suivez les instructions.**

You will *hear* each sentence once (twice), followed by a pause. **Vous entendrez chaque phrase une fois (deux fois), suivie d'un silence.**

You will then *hear* a review lesson. **Vous entendrez ensuite une révision. Ensuite vous allez entendre une leçon de révision. Voici ensuite une révision.**

You will then *hear* the correct answer. **Vous entendrez ensuite la bonne réponse.**

Imitate what you hear. **Imitez ce que vous entendez.**

Listen carefully. **Ecoutez attentivement.**

Listen to the directions. **Ecoutez les instructions.**

Listen only. **Ecoutez seulement.**

Listen to the recording (master lesson). **Ecoutez l'enregistrement (la version du maître).**

Listen to what you have just recorded. **Ecoutez ce que vous venez d'enregistrer.**

Listen to what you have recorded. **Ecoutez ce que vous avez enregistré.**

Continue *listening*. **Continuez à écouter.**

Don't *look* at the text. **Ne regardez pas votre texte.**

Look at the screen. **Regardez l'écran.**

Now *look* at the mimeographed sheet. **Regardez le texte polycopié.**

Memorize the entire dialog. **Apprenez tout le dialogue par coeur.**

Open your books. **Ouvrez vos livres.**

Play back (replay) the last sentence. **Faites repasser la dernière phrase.**

Ready! **Prêt!**

Raise your hand if you need help. **Levez la main si vous avez besoin d'aide.**

Begin to *record* now. **Commencez à enregistrer maintenant.**

Record your answer during the pause that follows the question. **Enregistrez votre réponse pendant la pause qui suit la question.**

Continue *recording*. **Continuez à enregistrer.**

I shall *repeat* some questions (expressions) twice quickly. **Je vais répéter deux fois rapidement certaines questions (expressions).**

Repeat! **Répétez!**

Repeat again (one more time). **Répétez encore une fois. Répétez une fois de plus.**

Repeat during the pause. **Répétez pendant le blanc sonore.**

Repeat the answer in the pause. **Répétez la réponse pendant le blanc sonore.**

Reply without hesitation. **Répondez sans hésiter.**

Speak faster (more slowly). **Parlez plus vite (plus lentement).**

Speak in a natural voice. **Parlez d'un ton naturel.**

Write in French. **Ecrivez en français.**

Equipment procedures

Don't force the *control* button. **Ne forcez pas le bouton.**

Set your *counter* at zero. **Ramenez votre compteur à zéro.**

Hang up your *headphones*. **Accrochez vos écouteurs.**

Put on your *headphones*. **Mettez vos écouteurs.**

Put them away (your *headphones*). **Rangez-les.**

Take off your *headphones*. **Enlevez vos écouteurs.**

Do you *hear* me? **M'entendez-vous?**

The *laboratory* will be open for individual use at 3:30 p.m. **Le laboratoire est**

ouvert à quinze heures trente pour les exercises individuels.
Be sure the *light* is on. **Assurez-vous que la lampe est allumée.**

My *machine* does not work. **Mon appareil ne marche pas.**
Start your *machine.* **Mettez votre appareil en marche.**
Stop your *machine.* **Arrêtez votre appareil.**
Turn off your *machine.* **Arrêtez votre appareil. Fermez votre appareil.**
Turn on your *machine.* **Mettez votre magnétophone en marche. Ouvrez votre appareil.**
Bring the *microphone* closer to you. **Rapprochez le micro de vous.**
Get closer to the *microphone.* **Rapprochez-vous du micro.**
Move the *microphone* away from you. **Eloignez le micro.**

Put down the front *partition.* **Abaissez le panneau avant de votre cabine.**
Press the key down. **Abaissez la manette.**
Turn your *program selector* to number five. **Tournez votre sélecteur de programme sur le numéro cinq.**
Push the button. **Appuyez sur le bouton.**
Push the switch to the right (to the left, away from you, toward you). **Poussez l'interrupteur à droite (à gauche, vers l'avant, vers vous).**

Be sure the *reels* are turning. **Assurez-vous que les bobines tournent.**
Rewind your tape. **Rebobinez votre bande.**

Is the *sound* clear? **Est-ce-que le son est net?**
Don't *speak* so loudly. **Ne parlez pas si fort.**
Speak more loudly (more softly). **Parlez plus fort (plus bas).**

I'm sorry. You have the wrong *tape.* **Excusez-moi. Vous n'avez pas la bonne bande.**

Adjust the *volume.* **Réglez le volume (la puissance).**
Turn it down (the *volume*). **Baissez-le.**
Turn it up louder (the *volume*). **Augmentez-le.**
Turn the *volume control* to the right (to the left). **Tournez le bouton de volume à droite (à gauche). Tournez le potentiomètre vers la droite (vers la gauche).**

Terminology

Adjustment, un réglage
Amplifier, un amplificateur, un ampli
Audio, auditif
Audiovisual, audio-visuel

Booth, une cabine
Brakes (the), les freins (m.)
Break (tape break), une rupture (accidentelle de la bande)

Capstan, un cabestan
Cartridge (tape cartridge or magazine), une cartouche, un chargeur à ruban, un boîtier-chargeur
Channel (a), un canal
Circuit (a), un circuit, un montage
Compare, comparer
Conduit, un conduit
Console (a), une console, un pupitre de commande
Correct (to), corriger
Cross-talk, la diaphonie, le mélange de conversation
Crystal, cristal
Cycle (a), un cycle

Decibel (db), un décibel (un db)
Delayed, à retardement
Dialog, un dialogue
Dictation, une dicteé
Directions, des instructions (f.)
Disk, un disque
Distortion, la distortion, la déformation
Drill (a), un exercice
Drill (to), faire des exercices
Drill exercise, exercice de répétition
Drill tape, une bande d'exercices
Dual-channel, bicanal
Dual-track (two-track), à double piste (à deux pistes)
Dubbing (the), le doublage
Dynamic, dynamique

Earphones (headphones), les écouteurs (m.), un casque (d'écoute)
Edit, faire un découpage, monter
Editing (the), le découpage

Electrical, électrique
Electronic, électronique
End of tape, la fin de la bande
Equipment, le matériel
Erase, effacer, démagnétiser
Eraser (tape eraser), un démagnétiseur
Error, une erreur

Fast forward, le bobinage rapide, la marche avant rapide
Feedback, l'effet (m.) de réaction
Fidelity, la fidélité
Film (a), un film
Film strip, un film fixe
Frequency response, la bande passante, la réponse aux diverses fréquences
Front partition of booth, le panneau avant de la cabine, le panneau frontal
Full-track, pleine bande, à piste entière

Gooseneck microphone, un microphone à col de cygne
Grammar pattern, une structure grammaticale, une construction grammaticale

Heads, des têtes (f.)
(to clean the heads), nettoyer les têtes
(magnetic recording head), une tête d'enregistrement
Hum, le ronflement, le ronronnement

Impedance, l'impédance (f.)
Ips (inches per second), cm/s (centimètres par seconde)
Input, l'entrée (f.), l'admission (f.)
Input adaptor (dual), un raccord, un adaptateur d'entrée (double), un redresseur d'impédence
Instantaneous playback, l'écoute instantanée
Intercommunication system ("intercom"), le système d'intercommunication

Jack, une fiche
Jack box, une boite de jonction

Key ("piano" key), une touche
Knob, un bouton, une commande

Language laboratory, le laboratoire de langues
Leader tape, une amorce
Length of pause, la durée du temps mort

Library, bibliothèque
(audio library), une sonothèque
(record library), une discothèque
(tape library), une collection de bandes, une bandothèque
Listening installation, un dispositif d'écoute
"Live" ("live" program), en direct
Loudspeaker, un haut-parleur

Magnetic, magnétique
Maintenance, l'entretien (m.)
Master lesson, la version du maître
Master tape, la bande originale, la bande maîtresse, la bande-mère
Materials, les matériaux (m.)
Microphone, un micro, un microphone
Mimeographed sheet, le texte polycopié
Mixer, un mélangeur
Model sentence, la phrase modèle
Monaural, monophonique, monaural
Monitor (to), contrôler
Monitoring (individual or group), le contrôle (individuel ou de groupe)
Mylar, le mylar

Native speaker (informant), une personne *du pays*
Needle (a), une aiguille, une pointe de lecture
Noise, le bruit

Ohm, l'ohm (m.)
Opaque projector, un épiscope
Operation (functioning), le fonctionnement
Outlet (electrical outlet), une sortie
Output, la sortie, le débit
Oxide, l'oxyde (m.)

Patch cord, un cordon de relais
Pause (the). (the blank space), le temps d'arrêt, le blanc sonore, le temps mort, la pause
Pause for repetition, la pause pour la répétition
Pause lever, une manette de temps mort
"Pickup" (arm of a phonograph), le lecteur
Pilot light (amber, green, red, white), la lampe témoine (jaune, verte, rouge, blanche)
Play (to play a recording), (faire) passer un enregistrement

- Playback, **la lecture de la bande**
- Playing time, **la durée de l'enregistrement**
- Plug (a), **une fiche**
- Portable, **portatif**
- Power, **la puissance**
- Power cord, **un cordon électrique, un cordon d'alimentation**
- Practice (the), **la pratique, l'exercice** (m.)
- Practice (to), **s'exercer**
- Preamplifier, **un préamplificateur, un préampli**
- Prerecorded, **préenregistré**
- Program (a), **un programme, une émission**
  - (a radio program), **une émission de radio**
  - (a TV program), **une émission de télévision**
- Projector, **un projecteur**
- Public address system, **un dispositif de diffusion électro-acoustique**
- Pushbutton, **un bouton-poussoir**
- Radio (a), **une radio**
  - (radio broadcast), **une émission radiophonique**
  - (to broadcast, to send out a program), **radiodiffuser, diffuser une émission**
- Record (a), **un disque**
- Record (to), **graver, enregistrer**
  - (to record a disk), **graver un disque**
  - (to record a tape), **enregistrer une bande**
- Recorder (tape recorder), **un magnétophone, un enregistreur magnétique**
- Recording (a), **un enregistrement**
- Recording level, **le niveau d'enregistrement**
- Reel (a), **une bobine**
  - (supply reel), **la bobine débitrice, la bobine vierge**
  - (takeup reel), **la bobine réceptrice la bobine enregistrée**
- Remote control, **la commande à distance, la télécommande**
- Repair (a), **une réparation**
- Repair (to), **réparer**
- Repair service, **le service de dépannage**
- Replaceable, **remplaçable, interchangeable**
- Review (a), **une révision**
- Review (to), **réviser**
- Review lesson, **une révision**
- Rewind (to), **rebobiner**
- Screen (a), **un écran**
- Selector switch, **un sélecteur, un commutateur**
- Signal-to-noise ratio, **le rapport signal-bruit**
- Single-track, **monopiste**
- Slides (film), **des diapositives** (f.)
- Sound (the), **le son**
- Soundproofing, **l'insonorisation** (f.)
- Soundtrack (film), **une piste sonore (de film)**
- Spare part, **une pièce détachée**
- Speed (tape speed), **la vitesse de défilement de la bande, la vitesse de roulement de la bande**
- Spillage (tape spillage), **le débobinage accidentel**
- Splice (a), **une collure de bande, un raccord**
- Splice (to), **raccorder, faire un raccord**
- Splicer (tape splicer), **une colleuse, une coupeuse-colleuse**
- Splicing tape (the), **de la bande adhésive, du scotch magnétique**
- Start (to), **mettre en marche (en route)**
- Stop (to), **arrêter**
- Student position (a 20-position lab.), **un poste, une cabine (un laboratoire à vingt postes, cabines)**
- Student's answer, **la réponse de l'étudiant**
- Studio (recording studio), **un studio d'enregistrement**
- Supervise, **diriger, surveiller**
- Supervision, **la surveillance**
- Supervisor, **un surveillant**
- Switch (a), **un bouton, un contacteur**
- Switch panel, **un panneau de distribution**
- System, **une chaîne**
- Talk (to), **parler**
- Tangled, **emmêlé**
- Tape (blank), **une bande vierge**
  - (magnetic), **une bande magnétique**
- Tape deck, **une platine**
- Tape drive mechanism, **un mécanisme d'entraînement**
- Tape transport, **le transport**
- Teacher console, **le pupitre de commande du professeur**
- Technician, **un technicien**

Television, **la télévision**
Television set, **un récepteur de télévision, une poste de télévision**
Text, **un texte**
Thread (to thread a tape machine), **enfiler**
Transformer, **un transformateur**
Transistor, **un transistor**
Tube (vacuum), **un tube (à vide)**
Turntable, **un tourne-disque, une table de lecture**

Untangle, **démêler**
Unwind, **dérouler**
Use (use a machine), **se servir de**

Voltage regulator, **un régulateur de voltage**
Volume, **le volume**
  (to turn down the volume), **diminuer le volume**
  (to turn up the volume), **augmenter le volume**
Volume control, **le réglage de puissance, le potentiomètre de puissance, le bouton de volume**
Volume indicator, **le modulomètre**
Wind (to wind tape), **embobiner (enrouler une bande)**

Wire (a), **un fil**
Wiring, **le fil, le câble, le câblage**
Wow, **le hurlement (un effet de pleurage, du pleurage)**

GERMAN

Instructional procedures

Answer! **Antworten Sie bitte!**
Answer the following questions in German. **Beantworten Sie die folgenden Fragen auf deutsch!**
Compare your *answer* with that of the master tape. **Vergleichen Sie Ihre Antworte mit der der Originalaufnahme!**

Begin! **Fangen Sie an!**
Please sit in *booth* number two in the third row. **Setzen Sie sich bitte in Kabine zwei, dritte Reihe.**

Close your books. **Machen Sie die Bücher zu!**
Close your eyes. **Schliessen Sie die Augen!**
Compare your pronunciation with that of the master tape. **Vergleichen Sie Ihre Aussprache mit der der Originalaufnahme!**
Correct your errors. **Verbessern Sie Ihre Fehler!**
Correct yourselves. **Korrigieren (verbessern) Sie sich!**

Follow the directions. **Befolgen Sie die Anweisungen!**

You will *hear* each sentence once (twice), followed by a pause. **Sie hören jeden Satz einmal (zweimal). Auf jeden Satz folgt eine Pause.**
You will now *hear* a review lesson. **Sie hören jetzt eine Wiederholungslektion.**
You will then *hear* the correct answer. **Sie hören dann gleich die richtige Antwort.**

Imitate what you hear. **Sprechen Sie genau das nach, was Sie hören!**

Listen carefully. **Hören Sie aufmerksam zu!**
Listen to the directions. **Hören Sie sich die Anweisungen an!**
Listen only. **Hören Sie nur zu!**
Listen to the recording (master lesson). **Hören Sie sich die Aufnahme (Originalaufnahme) an!**
Listen to what you have just recorded. **Hören Sie ab, was Sie soeben aufgenommen haben!**
Listen to what you have recorded. **Hören Sie sich Ihre Aufnahme an!**
Continue *listening*. **Hören Sie weiter zu!**
You must not *look* at the text now. **Sie dürfen jetzt nicht auf den Text sehen.**
Look at the screen. **Sehen Sie auf die Leinwand!**

Now *look* at the mimeographed sheet. **Sehen Sie jetzt auf das gedruckte Blatt!**

You must *memorize* the entire dialog. **Sie müssen das ganze Gespräch auswendig lernen.**

Open your books. **Öffnen Sie die Bücher!**

Play back (replay) the last sentence. **Lassen Sie den letzten Satz noch einmal ablaufen!**

Ready! **Fertig!**

Raise your hand if you need help. **Heben Sie die Hand, wenn Sie Hilfe benötigen!**

Begin to *record* now. **Beginnen Sie jetzt mit der Aufnahme!**

Record your answer during the pause that follows the question. **Nehmen Sie Ihre Antwort in der auf die Frage folgenden Pause auf!**

Continue *recording*. **Nehmen Sie weiter auf!**

I shall *repeat* some questions (expressions) twice quickly. **Ich werde einige Fragen (Ausdrücke) zweimal schnell wiederholen.**

Repeat! **Bitte nachsprechen!**

Repeat again (one more time). **Wiederholen Sie bitte noch einmal!**

Repeat during the pause. **Wiederholen Sie während der Pause!**

Repeat the answer in the pause. **Wiederholen Sie die Antwort während der Pause!**

Reply without hesitation. **Antworten Sie ohne zu zögern!**

Speak faster (more slowly). **Sprechen Sie bitte schneller (langsamer)!**

Speak in a natural voice. **Sprechen Sie (ganz) natürlich!**

Write in German. **Schreiben Sie auf deutsch!**

Equipment procedures

Don't force the *control* button! **Überdrehen Sie den Kontrollknopf nicht!**

Set your *counter* at zero. **Stellen Sie den Zähler auf Null!**

Hang up your *headphones*. **Hängen Sie den Kopfhörer weg (auf)!**

Put on your *headphones*. **Setzen Sie sich den Kopfhörer auf!**

Put them away (your *headphones*). **Legen Sie ihn weg (den Kopfhörer)!**

Take off your *headphones*. **Nehmen Sie den Kopfhörer ab!**

Do you *hear* me? **Hören Sie mich? Können Sie mich hören?**

The *laboratory* will be open for individual use at 3:30 p.m. **Das Labor steht den Studenten ab 15.30 (fünfzehn Uhr dreissig) zur Benutzung offen.**

Be sure the control *light* is on. **Vergewissern Sie sich, dass das Kontrollicht (die Kontrollampe) brennt!**

My *machine* does not work. **Mein Apparat funktioniert nicht.**

Start your *machine*. **Stellen Sie den Apparat an!**

Stop the *machine*. **Halten Sie den Apparat an!**

Turn off your *machine*. **Stellen Sie den Apparat ab! Schalten Sie den Apparat ab!**

Turn on your *machine*. **Stellen Sie den Apparat an! Schalten Sie den Apparat an!**

Bring the *microphone* closer to you. **Bringen Sie das Mikrophon näher an sich heran!**

Get closer to the *microphone*. **Rücken Sie näher zum Mikrophon!**

Move the *microphone* away from you. **Halten Sie das Mikrophon weiter von sich weg! Sprechen Sie weiter von Mikrophon entfernt!**

Put down the front *partition*. **Lassen Sie (Klappen Sie) die Vorderwand herunter!**

Press the key down. **Drücken Sie die Taste hinunter! Drücken Sie auf die Taste!**

Turn your *program selector* to number five. **Stellen Sie den Schalter auf Nummer fünf!**

Push the button. **Drücken Sie auf den Knopf!**

Push the switch to the right (to the left, away from you, toward you). **Schalten**

Sie nach rechts (nach links, von sich weg, auf sich zu)!

Be sure the *reels* are turning (are not turning). **Achten Sie darauf, dass sich die Spulen drehen (dass sich die Spulen nicht drehen)!**
Rewind your tape. **Spulen Sie das Tonband zurück!**

Is the *sound* clear? **Ist der Ton klar?**
Don't *speak* so loudly. **Sprechen Sie bitte nicht so laut!**
Speak more loudly (more softly). **Sprechen Sie bitte lauter (leiser)!**

I'm sorry. You have the wrong *tape*. **Es tut mir leid. Sie haben das falsche Tonband.**

Adjust the *volume*. **Regulieren Sie die Lautstärke!**
Turn it down (the *volume*). **Leiser!**
Turn it up louder (the *volume*). **Lauter!**
Turn the *volume control* to the right (to the left). **Drehen Sie den Lautstärkeregler nach rechts (nach links)!**

Terminology

Adjustment, **eine Einstellung, eine Verstellung**
Amplifier, **ein Verstärker (n.)**
Audiovisual aids, **audio-visuelle Hilfen, das Lehrmittel**

Booth, **eine Kabine**
Brakes (the), **die Bremse**
Break (tape break), **ein Riss (im Tonband), ein Reissen (n.)**

Capstan, **eine Spindel**
Cartridge (tape cartridge or magazine), **ein Magazin, eine Kassette**
Channel (a), **eine Linie, ein Kanal (m.)**
Circuit (a), **ein Stromkreis (m.), ein Schaltkreis (m.)**
Compare, **vergleichen**
Conduit, **ein Leitungsrohr (n.)**
Console (a), **ein Schaltpult (n.), ein Reglerpult (n.)**
Correct (to), **verbessern, korrigieren**
Cross-talk, **Nebensprechen (n.) Übersprechen (n.)**
Crystal, **Kristal (m.)**
Cycle (a), **eine Periode, eine Phase**

Decibel (db), **ein Dezibel (n.)**
Dialog, **ein Dialog (m.)**
Dictation, **ein Diktat (n.)**
Directions, **die Anweisungen**
Disk, **eine Schallplatte**
Distortion, **die Verzerrung**
Drill (a), **eine Übung, ein Drill (m.)**
Drill (to), **üben, drillen**
Drill tape, **ein Übungstonband (n.), ein Drilltonband (n.)**
Dual-channel tape recorder, **ein zweikanaliges Tonbandgerät (n.)**
Dual-track (two-track) **zweispurig, doppelspurig**
Dubbing (the), **das Überspielen (n.)**
Dynamic, **dynamisch**

Earphones (headphones), **Kopfhörer (m.)**
Edit, **ein Tonband schneiden**
Electrical, **elektrisch**
Electronic, **elektronisch**
End of tape, **das Ende des Tonbandes, das Ende der Aufnahme**
Equipment, **die Apparatur, die Einrichtung, die Ausstattung**
Erase, **löschen, entmagnetisieren**
Eraser (tape eraser), **ein Tonbandlöschgerät (n.)**
Error, **ein Irrtum (m.), ein Fehler (m.)**

Fast forward, **schnell vorwärts**
Feedback, **die Rückkopplung**
Fidelity, **die Treue der Wiedergabe, die Reinheit**
Film (a), **ein Film (m.)**
Film strip, **ein Lichtbildstreifen (m.)**
Frequency response, **die Frequenztreue, die Frequenzwiedergabe**
Front partition of booth, **die Vorderwand**

Gooseneck microphone, **ein Gänsehalsmikrophon (n.)**
Grammar pattern, **ein Strukturschema (n.)**

Head (magnetic recording head), **ein magnetischer Tonkopf (m.)**
Hum, **das Brummen**

Impedance, **der Wechselstromwiderstand, die Impedanz**
Ips (inches per second), **Zoll pro Sekunde**

Input, **der Eingang**
Input adaptor (dual), **ein Eingangszwischenstecker** (m.), **ein Vorsatzgerät** (n.)
Instantaneous playback, **eine sofortige Wiedergabe**
Intercommunication system ("intercom"), **die Gegensprechanlage, die Wechselsprechanlage ("der Interkom")**

Jack, **eine Klinke**
Jack box, **eine Klinkenbüchse**

Key ("piano" key), **eine Taste**
Knob, **ein Knopf** (m.)

Language laboratory, **das Sprachlabor**
Leader tape, **ein Vorspannband** (n.)
Length of pause, **die Pausenlänge**
Library, **eine Bibliothek**
    (audio library), **ein Schallarchiv** (n.), **ein Schallplattenarchiv** (n.)
    (record library), **eine Diskothek**
    (tape library), **eine Tonbandsammlung, ein Tonbandarchiv** (n.)
Listening installation, **eine Abhörvorrichtung, eine Einrichtung zum Abhören van Tonbändern**
"Live" ("live" program), **eine Direktaufnahme**
Loudspeaker, **ein Lautsprecher** (m.)

Magnetic, **magnetisch**
Maintenance, **die Instandhaltung**
Master lesson, **die Originallektion**
Master tape, **die Originalaufnahme**
Materials, **der Stoff, das Material**
Microphone, **ein Mikrophon** (n.)
Mimeographed sheet, **die Vervielfältigung**
Mixer, **ein Mischer** (m.), **ein Mischpult** (n.)
Model sentence, **der Mustersatz**
Monaural, **einkanalig**
Monitor (to), **abhören (zu Kontrollzwecken), mithören, überwachen**
Monitoring (individual or group), **die Kontrolle (die Individuelle Kontrolle oder die Gruppenkontrolle)**
Monitoring (the), **das Abhören, das Mithören, das Zuhören**
Multichannel (tape with several channels), **Vielspuren (=) eine Vielspurenmaschine, Vielkanal (=) eine Vielkanaleinrichtung** (more than two programs from console)
Mylar, **das Mylar**

Native speaker (informant), **ein einheimischer Sprecher (eine Person, die zu Vorführungszwecken seine Muttersprache spricht)**
Needle (a), **eine Nadel**
Noise, **das Geräusch, das Rauschen**

Ohm, **das Ohm**
Opaque projector, **ein Opakprojektor** (m), **ein Epidiaskop** (n.)
Operation (functioning), **das Funktionieren, der Betrieb**
Outlet (electrical outlet), **eine Steckdose**
Output, **der Ausgang**
Oxide, **das Oxyd**

Patch cord, **eine Verbindungsschnur**
Pause (the) (blank space on tape), **die Pause**
Pause for repetition, **die Wiederholungspause**
Pause lever, **eine Kurzstopptaste**
"Pickup" (arm of a phonograph), **der Tonabnehmer, der Tonarm**
Pilot light (amber, green, red, white), **das Kontrollicht, die Kontrollampe (gelb, grün, rot, weiss)**
Play (to play a recording), **abspielen (eine Aufnahme)**
Playback, **das Abspielen einer eben gemachten Aufnahme**
Playing time, **die Spieldauer, die Laufzeit**
Plug (a), **ein Stecker** (m.), **ein Stöpsel** (m.)
Portable, **tragbar**
Power, **die Kraft, die Kraftquelle, der Strom, die Energie, die Leitung**
Power cord, **eine elektrische Schnur, eine Stromleitung, eine Ausschlusschnur**
Practice (the), **die Übung**
Practice (to), **üben**
Preamplifier, **ein Vorverstärker** (m.)
Prerecorded tape, **eine Fachaufnahme**
Program (a), **ein Programm** (n.)
Projector, **ein Projektor** (m.), **ein Projektionsapparat** (m.), **ein Lichtbildapparat** (m.)
Public address system, **eine öffentliche Lautsprecheranlage**

- Soundproofing, die akustische Verkleidung
- Soundtrack (film), eine Tonspur
- Spare part, ein Ersatzteil (n.)
- Speed (tape speed), die Geschwindigkeit
- Spillage (tape spillage), die Verknäuelung, der Bandsalat
- Splice (a), eine Klebstelle,, eine Spleissstelle
- Splice (to), zusammenkleben, spleissen
- Splicer (tape splicer), eine Bandklebevorrichtung, eine Spleissvorrichtung
- Splicing tape, der Klebestreifen
- Start (to), einschalten, in Gang setzen
- Stop (to), abstellen, abschalten
- Student position, ein Arbeitsplatz (m.)
- Student's answer, die Antwort des Schülers
- Studio (recording studio), ein Aufnahmestudio (n.)
- Supervise, überwachen, kontrollieren
- Supervision, die Überwachung, die Kontrolle, die Aufsicht
- Supervisor, eine Aufsichtsperson, ein Kontrolleur (m.)
- Switch (a), ein Schalter (m.)
- Switch panel, ein Schaltbrett (n.)
- System, ein System (n.)

- Talk (to), sprechen
- Tangled, verwickelt
- Tape (blank), ein unbespieltes Tonband (n.), ein Frischband (n.)
  - (magnetic), ein Tonband (n.), ein Magnetophonband (n.)
- Tape deck, eine Spulenanlage
- Teacher console, ein Schaltpult (n.) für den Lehrer
- Technician, ein Teckniker (m.)
- Television, das Fernsehen
- Television set, ein Fernsehapparat (m.), ein Fernseher (m.)
- Text, ein Text (m.)
- Thread (to thread a tape machine), einlegen, einspulen
- Transistor, ein Transistor (m.)
- Tube (vacuum), eine Elektronenröhre, eine Röhre
- Turntable, ein Plattenspieler (m.)

- Untangle, entwirren
- Unwind, abwickeln
- Use (to use a machine), benutzen, gebrauchen

- Pushbutton, eine Drucktaste

- Radio (a), ein Radioapparat (m.), ein Radio (n.), ein Rundfunkapparat (m.), ein Rundfunkgerät (n.)
  - (radio broadcast), eine Rundfunksendung, eine Radioübertragung, eine Rundfunkübertragung, eine Radiosendung, eine Sendung
  - (to broadcast, to send out a program), ein Programm senden (n.)
- Record (a), eine Schallplatte
- Record (to), aufnehmen
  - (to record a disk), auf eine Platte aufnehmen
  - (to record a tape), auf ein Tonband aufnehmen
- Recorder (tape recorder), ein Tonbandgerät (n.), ein Magnetophongerät (n.)
- Recording, eine Aufnahme
- Recording level, Aufnahmepegel
- Reel (a), eine Spule
  - (supply reel), die zuführende Spule
  - (take-up reel), die aufnehmende Spule
- Remote control, (remote operation), die Fernbedienung
  - (remote steering or controlling), die Fernsteuerung
  - (remote switching), die Fernschaltung
- Repair (a), eine Reparatur, eine Ausbesserung
- Repair (to), reparieren, ausbessern
- Repair service, der Reparaturdienst
- Replaceable, auswechselbar, ersetzbar
- Review (a), eine Wiederholung
- Review (to), wiederholen
- Review lesson, eine Wiederholungslektion
- Rewind (to), zurückspulen

- Screen (a), eine Leinwand
- Selector switch, eine Linienwähler (m.), ein Wählschalter (m.)
- Signal-to-noise ratio, das Verhältnis vom Signal- zu Geräuschstärke, das Signalgeräuschverhältnis
- Single-track, einspurig
- Slides (colored film), das Diapositiv, das Dia
- Sound (the), der Ton

Volume, **die Lautstärke**
  (to turn down the volume), **leiser stellen**
  (to turn up the volume), **lauter stellen**
Volume control, **der Lautstärkeregler**
Volume indicator, **der Pegelanzeiger, der Lautstärkeanzeiger**
Wind (to), **wickeln**
  (to wind off tape), **abwickeln**
  (to wind on tape), **aufwickeln**
Wire (a), **der Draht**
Wiring, **die Verdrahtung, die Verkabelung**

ITALIAN

Instructional procedures

Answer! **Risponda!**
Answer the following questions in Italian. **Risponda alle seguenti domande in italiano.**
Compare your *answer* with that of the master tape. **Confronti la sua risposta con quella del nastro modello.**

Begin! **Incominci!**
Please sit in *booth* number two in the third row. **Per favore, si sieda nella cabina numero due, nella terza fila.**

Close your book. **Chiuda il libro.**
Close your eyes. **Chiuda gli occhi.**
Compare your pronunciation with that of the master tape. **Confronti la sua pronuncia con quella del nastro modello.**
Correct your errors. **Corregga i suoi errori.**
Correct yourselves. **Si corregga.**

Follow the directions. **Segua le istruzioni.**

You will *hear* each sentence once (twice), followed by a pause. **Sentirà ogni frase una volta (due volte), seguita da una pausa.**
You will then *hear* a review lesson. **Poi sentirà una lezione di riepilogo.**
You will then *hear* the correct answer. **Poi sentirà la risposta corretta (giusta).**

Imitate what you hear. **Imiti quello che sente.**

Listen carefully. **Ascolti attentamente.**
Listen to the directions. **Ascolti le istruzioni.**
Listen only. **Ascolti solamente.**
Listen to the recording (master lesson). **Ascolti la registrazione (lezione modello).**
Listen to what you have just recorded. **Ascolti quello che ha registrato adesso.**
Listen to what you have recorded. **Ascolti quello che ha registrato.**
Continue *listening.* **Continui ad ascoltare.**
You must not *look* at the text now. **Non deve guardare il testo adesso.**
Look at the screen. **Guardi lo schermo.**
Now *look* at the mimeographed sheet. **Ora guardi il foglio ciclostilato.**

You must *memorize* the entire dialog. **Lei deve imparare a memoria tutto il dialogo.**

Open your book. **Apra il libro.**

Play back (replay) the last sentence. **Ascolti di nuovo l'ultima frase.**

Ready! **Pronto!**
Raise your hand if you need help. **Alzi la mano se ha bisogno di qualche cosa.**
Begin to *record* now. **Incominci a registrare adesso.**
Record your answer during the pause that follows the question. **Registri la sua risposta dopo la pausa che segue la domanda.**
Continue *recording.* **Continui a registrare.**
I shall *repeat* some questions (expressions) twice quickly. **Ripeterò qualche domanda (expressione) due volte, rapidamente.**
Repeat! **Ripeta!**

Repeat again (one more time). **Ripeta ancora una volta.**
Repeat during the pause. **Ripeta durante la pausa.**
Repeat the answer in the pause. **Ripeta la risposta durante la pausa.**
Reply without hesitation. **Risponda senza esitare.**

Speak faster (more slowly). **Parli più rapidamente (più lentamente).**
Speak in a natural voice. **Parli in un tono di voce naturale.**

Write in Italian. **Scriva in italiano.**

Equipment procedures

Don't force the *controls*. **Non forzi i controlli.**
Set your *counter* at zero. **Fissi il controllo a zero.**

Hang up your *headphones*. **Appenda la cuffia.**
Put on your *headphones*. **Metta la cuffia.**
Put them away (your *headphones*). **Metta via la cuffia.**
Take off your *headphones*. **Si levi la cuffia.**
Do you *hear* me? **Mi sente?**

The *laboratory* will be open for individual use at 3:30 p.m. **Il laboratorio è aperto per gli studenti alle quindici e trenta.**
Be sure the *light* is on. **Si assicuri che la luce sia accesa.**

My *machine* does not work. **Il mio apparecchio non funziona.**
Start your *machine*. **Metta in marcia il suo apparecchio.**
Stop the *machine*. **Fermi l'apparecchio.**
Turn off your *machine*. **Spenga l'apparecchio.**
Turn on your *machine*. **Accenda l'apparecchio. Apra l'interruttore dell'apparecchio.**
Bring the *microphone* closer to you. **Si avvicini il microfono.**
Get closer to the *microphone*. **Si avvicini al microfono.**
Move the *microphone* away from you. **Allontani il microfono.**

Put down the front *partition*. **Abbassi il pannello frontale della cabina.**
Press the key down. **Prema il tasto.**
Turn your *program selector* to number five. **Prenda il canale numero cinque.**
Push the button. **Prema il bottone.**
Push the switch to the right (to the left, away from you, toward you). **Spinga la levetta a destra (a sinistra, lontano da lei, verso di lei).**

Be sure the *reels* are turning. **Si assicuri che le bobine girino.**
Rewind your tape. **Riavvolga il nastro.**

Is the *sound* clear? **È chiaro il suono?**
Don't *speak* so loudly. **Non parli così forte.**
Speak more loudly (more softly). **Parli più forte (più piano).**

I'm sorry. You have the wrong *tape*. **Mi dispiace, lei non ha il nastro giusto.**

Adjust the *volume*. **Regoli il volume.**
Turn it down (the *volume*). **Abbassi il volume.**
Turn it up louder (the *volume*). **Alzi il volume.**
Turn the *volume control* to the right (to the left). **Giri il controllo verso sinistra (verso destra).**

Terminology

Adjustment, **un ambientamento, una messa a punto, una regolazione**
Amplifier, **un amplificatore**
audio, **audio**

Booth, **una cabina**
Brakes, **i freni**
Break (tape break), **una rottura**

Capstan, **una guida**
Cartridge (tape cartridge or magazine), **un serbatoio, una bobina serbatoio**
Channel (a), **un canale, una stazione**
Circuit (a), **un circuito**
Compare, **confrontare, paragonare**
Conduit, **un tubo isolante, un condotto**
Console (a), **una stazione (cattedra) di controllo**
Correct (to), **correggere**

Cross-talk, diafonía
Crystal, cristallo
Cycle (a), un ciclo, un período

Decibel (db), un decibel
Delayed, ritardato, rallentato
Dialog, un diàlogo
Dictation, un dettato
Directions, le istruzioni (f.)
Disk, un disco
Distortion, la distorsione, l'alterazione
Drill (a), un esercizio, un'esercitazione
Drill (to), esercitare, fare esercizi
Drill exercise, un esercizio a ripetizione
Drill tape, un nastro con esercizi
Dual-channel, (un magnetòfono) a due canali
Dual-track (two-track), (un nastro) a doppia traccia
Dubbing (the), il doppiaggio
Dynamic, dinamico

Earphones (headphones), la cuffia
Edit, montare
Editing (the), il montaggio
Electrical, elettrico
Electronic, elettronico
End of tape, la fine del nastro, la fine della registrazione
Equipment, l'attrezzamento (m.)
Erase, cancellare, smagnetizzare
Eraser (tape eraser), uno strumento per cancellare, uno strumento cancellatore
Eraser (bulk), un raschietto
Error, uno sbaglio

Fast forward, avanti veloce
Feedback, la rialimentazione
Fidelity, la fedeltà
Film (a), un film, una pellicola
Film strip, una filmina (film per proiezione fissa con didascalie), una serie di proiezioni fisse su pellicola
Frequency response, la risposta di frequenza
Front partition of booth, un pannello frontale della cabina
Full-track, traccia intera

Gooseneck microphone, un microfono a collo di cigno
Grammar pattern, una sagoma grammaticale

Heads, le teste
  (to clean the head), pulire la testa
  (magnetic recording head), una testa di registrazione magnetica
Hum, il ronzìo

Impedance, l'impedenza (f.)
Ips (inches per second), pollici al secondo
Input, l'entrata (f.), l'alimentazione (f.)
Input adaptor (dual), un raccordo d'entrata
Instantaneous playback, riproduttore istantaneo
Intercommunication system ("intercom"), il sistema di intercomunicazione ("l'intercom")

Jack, una presa femmina
Jack box, una cassetta da presa (usata per innestare spine di cuffie e altoparlanti)

Key ("piano" key), un tasto
Knob, una chiavetta

Language laboratory, il laboratorio linguistico
Leader tape, un nastro guida
Length of pause, una durata della pausa
Library, biblioteca
  (audio library), una audioteca
  (record library), una discoteca, una biblioteca di dischi
  (tape library), una nastroteca, una biblioteca di nastri
Listening installation, un'installazione d'ascolto
"Live" ("live" program), una registrazione diretta
Loudspeaker, un altoparlante

Magnetic, magnetico
Maintenance, la manutenzione
Master lesson, una lezione modello
Master tape, un nastro matrice
Materials, i materiali, i testi
Microphone, un microfono
Mimeographed sheet, un foglio ciclostilato
Mixer, un sincronizzatore
Model sentence, una frase modello
Monaural, a canale singolo
Monitor (to), ascoltare, controllare
Monitoring (individual or group), il controllo (individuale o collettivo)

Monitoring (the), **l'audizione di controllo, l'ascolto (m.) di controllo**
Mylar, **il mylar**

Native speaker (informant), **un oriundo, (un assistente oriundo del paese)**
Needle (a), **un ago, una puntina (per il grammofono)**
Noise, **il rumore**

Ohm, **l'ohm (m.)**
Opaque projector, **un proiettore opaco, un proiettore a lanterna**
Operation (functioning), **il funzionamento**
Outlet (electrical outlet), **una presa di corrente**
Output, **la potenza**
Oxide, **l'ossido (m.)**

Patch cord, **un cordone di collegamento**
Pattern practice (drill), **esercizio (esercitazione) strutturale**
Pause (the), (the blank space), **la pausa, l'intervallo (m.)**
Pause for repetition, **la pausa per la ripetizione**
Pause lever, **una leva d'arresto**
"Pickup" (arm of phonograph), **il diaframma**
Pilot light (amber, green, red, white), **la luce di controllo (gialla, verde, rossa, bianca)**
Play (to play a recording), **ascoltare un'incisione (una registrazione)**
Playback, **la riproduzione sonora**
Playing time, **la durata dell'incisione (della registrazione)**
Plug (a), **una presa, una spina**
Portable, **portatile**
Power, **la corrente elettrica**
Power cord, **un cordone elettrico**
Practice (the), **l'esercizio**
Practice (to), **esercitarsi**
Preamplifier, **un pre-amplificatore**
Prerecorded, **pre-registrato**
Program (a), **un programma**
Projector, **un proiettore**
Public address system, **un sistema di diffusione radiofonica**
Pushbutton, **un pulsante**

Radio (a), **una radio**
    (radio broadcast), **una radio diffusione**
    (to broadcast, to send out a program), **radiotrasmettere, radio diffondere**
Record (a), **un disco**
    (longplay), **un disco microsolco**
Record (to record a disk), **incidere un disco**
    (to record a tape), **registrare un nastro**
Recorder (tape recorder), **un magnetofono**
Recording (a), **una registrazione**
Recording level, **l'intensità di registrazione**
Reel (a), **una bobina**
    (supply reel), **una bobina di alimentazione**
    (take-up reel), **una bobina di avvolgimento**
Remote control, **il comando a distanza**
Repair (a), **una riparazione**
Repair (to), **riparare**
Repair service, **il servizio di riparazione**
Replaceable, **sostituibile**
Review (a), **un ripasso, una lezione di ricapitolazione**
Review (to), **ripassare**
Review lesson, **una lezione di riepilogo**
Rewind (to), **riavvolgere**

Screen (a), **lo schermo**
Selector switch, **un selettore**
Signal-to-noise ratio, **la chiarezza, il rapporto di segnale-rumore**
Single-track, **a traccia unica**
Slides (film), **le diapositive**
Sound (the), **il suono**
Soundproofing, **l'isolamento (m.) acustico**
Soundtrack (film), **una colonna sonora**
Spare part, **un pezzo di ricambio**
Speed (tape speed), **la velocità**
Spillage (tape spillage), **il groviglio**
Splice (a), **una giuntura**
Splice (to), **unire**
Splicer (tape splicer), **una giuntatrice**
Splicing tape, **il nastro per giuntatrice**
Start (to), **mettere in movimento**
Stop (to), **fermare**
Student position (a 20-position student lab), **posizione dello studente (capacità per venti studenti)**
Student's answer, **la risposta dello studente**

Studio (recording studio), **uno studio di registrazione**
Supervise, **controllare**
Supervision (the), **il controllo**
Supervisor, **un sorvegliatore, un direttore**
Switch (a), **un interruttore**
Switch panel, **un quadro di controllo**
System, **un sistema**

Talk (to), **parlare**
Tangled, **ingrovigliato**
Tape (blank), **un nastro in bianco**
  (magnetic), **un nastro magnetizzato**
Tape deck, **un registratore a nastro**
Tape drive mechanism, **il meccanismo di movimento del nastro**
Tape transport, **un trasportatore del nastro**
Teacher console, **una cattedra di controllo dell'istruttore (dell'insegnante)**
Technician, **un tecnico**
Television, **la televisione**
Television set, **un televisore**
Text, **il testo**
Thread (to thread a tape machine), **avvolgere**
Transformer, **un trasformatore**
Transistor, **un transistore**
Tube (vacuum), **una valvola termoionica**
Turntable, **un giradischi**

Untangle, **dipanare, districare, snodare**
Unwind, **svolgere, districare, dipanare**
Use (to use a machine), **usare**

Voltage regulator, **un regolatore di tensione, un voltaggio**
Volume, **il volume**
  (to turn down the volume), **abbassare il volume, ridurre il volume**
  (to turn up the volume), **alzare il volume, incrementare il volume**
Volume control, **il controllo d'intensità**
Volume indicator, **l'indicatore d'intensità**

Wind (to wind tape), **avvolgere**
Wire (a), **un filo elettrico**
Wiring, **una conduttura elettrica**
Wow, **l'ondulazione ritmica del suono [cambiamento lento ritmico o aritmico nel suono riprodotto (fino a 6 cambiamenti al secondo)]**

RUSSIAN

Instructional procedures

Answer! **Отве́тьте. Отвеча́йте.**
Answer the following questions in Russian. **Отве́тьте на сле́дующие вопро́сы по-ру́сски.**
Compare your *answer* with that of the master tape. **Сравни́те ваш отве́т с по́длинником ле́нты.**

Begin! **Начина́йте.**
Please sit in *booth* number two in the third row. **Пожа́луйста, ся́дьте в каби́нку но́мер два, в тре́тьем ряду́.**

Close your books. **Закро́йте кни́ги.**
Close your eyes. **Закро́йте глаза́.**
Compare your pronunciation with that of the master tape. **Сравни́те ва́ше произноше́ние с по́длинником ле́нты.**
Correct your errors. **Испра́вьте свои́ оши́бки.**
Correct yourselves. **Попра́вьте себя́ са́ми.**

Follow the directions. **Сле́дуйте указа́ниям.**

You will *hear* each sentence once (twice), followed by a pause. **Вы прослу́шаете ка́ждое предложе́ние оди́н раз (два ра́за), по́сле чего́ бу́дет па́уза.**
You will then *hear* a review lesson. **По́сле э́того вы прослу́шаете повторе́ния, повтори́тельный уро́к.**
You will then *hear* the correct answer. **Зате́м вы услы́шите пра́вильный отве́т.**

Imitate what you hear. **Повтори́те то́чно то, что вы слы́шите.**

Listen carefully. **Слу́шайте внима́тельно.**
Listen to the directions. **Слу́шайте указа́ния.**

Listen only. **Слу́шайте то́лько.**
Listen to the recording (master lesson). **Слу́шайте за́пись.**
Listen to what you have just recorded. **Прослу́шайте то, что вы то́лько что записа́ли.**
Listen to what you have recorded. **Прослу́шайте то, что вы записа́ли.**
Continue *listening.* **Продолжа́йте слу́шать.**
Don't *look* at the text. **Не смотри́те в текст.**
Look at the screen. **Смотри́те на экра́н.**
Now *look* at the mimeographed sheet. **Тепе́рь смотри́те на печа́тные экземпля́ры.**

Memorize the entire dialog. **Заучи́те наизу́сть весь диало́г.**

Open your book. **Откро́йте ва́шу кни́гу.**

Play back (replay) the last sentence. **Прослу́шайте после́днее предложе́ние.**

Ready! **Гото́вы!**
Raise your hand if you need help. **Подними́те ру́ку, е́сли вам ну́жно объясне́ние.**
Begin to *record* now. **Сейча́с начина́йте запи́сывать.**
Record your answer during the pause that follows the question. **Запиши́те свой отве́т во вре́мя па́узы, сле́дующей за вопро́сом.**
Continue *recording.* **Продолжа́йте нагова́ривать.**
I shall *repeat* some questions (expressions) twice quickly. **Я повторю́ не́которые вопро́сы (выраже́ния) бы́стро два ра́за (два́жды).**
Repeat! **Повтори́те!**
Repeat again (one more time). **Повтори́те (опя́ть) ещё раз.**
Repeat during the pause. **Повтори́те во вре́мя па́узы.**
Repeat the answer in the pause. **Повтори́те отве́т во вре́мя па́узы.**

Reply without hesitation. **Отвеча́йте сейча́с же.**

Speak faster (more slowly). **Говори́те бы́стрее (ме́дленнее).**

Speak in a natural voice. **Говори́те обы́чным го́лосом.**

Write in Russian. **Пиши́те по-ру́сски.**

Equipment procedures

Change to another channel. **Вы́брать друго́й кана́л (другу́ю ста́нцию).**
Don't force the *controls.* **Не нажима́йте регуля́тор сли́шком си́льно.**
Set your *counter* at zero. **Поста́вьте ваш счётчик на ноль.**

Hang up your *headphones.* **Пове́сьте ва́ши нау́шники.**
Put on your *headphones.* **Наде́ньте нау́шники.**
Put them away (your *headphones*). **Отложи́те их (ва́ши нау́шники).**
Take off your *headphones.* **Сними́те нау́шники.**
Do you *hear* me? **Вы слы́шите меня́?**

The *laboratory* will be open for individual use at 3:30 p.m. **Лаборато́рия бу́дет откры́та для ли́чного по́льзования в полови́не четвёртого.**
Be sure the *light* is on. **Прове́рьте гори́т ли контро́льная ла́мпа.**

My *machine* does not work. **Мой маши́на не рабо́тает (де́йствует).**
Start your *machine.* **Включи́те ва́шу маши́ну (пусти́те в ход).**
Stop your *machine.* **Останови́те ва́шу маши́ну.**
Turn off your *machine.* **Вы́ключите ва́шу маши́ну.**
Turn on your *machine.* **Включи́те ва́шу маши́ну.**
Bring the *microphone* closer to you. **Придви́ньте микрофо́н к себе́.**
Get closer to the *microphone.* **Подви́ньтесь к микрофо́ну.**
Move the *microphone* away from you. **Отодви́ньте микрофо́н от себя́.**

Put down the front *partition.* **Опусти́те пере́днюю перегоро́дку ва́шей бу́дки (каби́нки).**
Press the key down. **Нажми́те кно́пку.**

Turn your *program selector* to number five. Поста́вьте селе́ктор програ́ммы на пя́тый но́мер.
Push the button. Нажми́те кно́пку.
Push the switch to the right (to the left, away from you, toward you). Поверни́те переключа́тель напра́во (нале́во, от себя́, к себе́).

Be sure the *reels* are turning. Прове́рьте, кру́тятся (ве́ртятся) ли кату́шки.
Rewind your tape. Перемота́йте ва́шу ле́нту.

Is the *sound* clear? Вы слы́шите я́сно?
Don't *speak* so loudly. Не говори́те так гро́мко.
Speak more loudly (more softly). Говори́те гро́мче (ти́ше).

I'm sorry. You have the wrong *tape*. Прости́те. У вас не та ле́нта.

Adjust the *volume*. Отрегули́руйте си́лу зву́ка.
Turn it down (the *volume*). Уменьши́те звук.
Turn it up louder (the *volume*). Уси́льте звук.
Turn the *volume control* to the right (to the left). Поверни́те регуля́тор зву́ка напра́во (нале́во).

Terminology

Adjustment, регулиро́вка
Amplifier, усили́тель
Audio, звуково́й
Audiovisual, нагля́дные посо́бия

Booth, бу́дка, каби́на, (каби́нка)
Brakes (the), тормоза́
Break (tape break), разры́в (магни́тной ле́нты)

Capstan, тон-ось, (магнитофо́на)
Cartridge (tape cartridge or magazine), кассе́та, ада́птер
Channel (a), ста́нция, кана́л
Circuit (a), цепь, ко́нтур, схе́ма
Compare, сра́внивать, сравни́ть
Conduit, кондуи́т, трубопрово́д
Console (a), консо́ль, прибо́рная установка
Correct (to), исправля́ть, испра́вить; поправля́ть, попра́вить
Cross-talk, перехо́дная поме́ха, диафо́ния, прослу́шивание (чужи́х сигна́лов)
Crystal, криста́лл
Cycle (a), цикл

Decibel (db), децибе́л
Delayed, заде́ржанный
Dialog, диало́г
Dictation, дикто́вка
Directions, указа́ния
Disk, диск, пласти́нка
Distortion, искаже́ние
Drill (a), упражне́ние
Drill (to), упражня́ться
Drill exercise, упражне́ние
Drill tape, ле́нта для упражне́ния
Dual-channel, двойно́й кана́л, (магнитофо́н)
Dual-track (two track), двухдоро́жечный
Dubbing (the), дубли́рование, дубля́ж
Dynamic, динами́ческий

Earphones (headphones), нау́шники
Edit, монти́ровать, смонти́ровать
Editing (the), монта́ж
Electrical, электри́ческий
Electronic, электро́нный
End of tape, коне́ц ле́нты, оконча́ние ле́нты
Equipment, обору́дование
Erase, стира́ть, стере́ть
Eraser (bulk), электромагни́т стира́ния
Eraser (tape eraser), прибо́р для стира́ния магни́тной ле́нты
Error, оши́бка

Fast forward, бы́стро вперёд
Feedback, обра́тная связь, обра́тное пита́ние
Fidelity, ве́рность, воспроизведе́ние
Film (a), фильм, плёнка
Film strip, диафи́льм
Frame (film), кадр
Frequency response, величина́ (или характери́стика) зави́симая от частоты́
Front partition of booth, пере́дняя перегоро́дка каби́ны (бу́дки)
Full-track (recording), за́пись на по́лную ширину́ ле́нты

Gooseneck microphone, ги́бкая подста́вка микрофо́на
Grammar pattern, граммати́ческая схе́ма

Heads, голо́вки
(magnetic recording head), магни́тная звукозапи́сывающая голо́вка
(to clean the head), голо́вка очища́ющая звук
Hum, гул

Impedance, ко́мплексное сопротивле́ние, по́лное сопротивле́ние, импе́данс
Ips (inches per second), дю́ймов в секу́нду
Input, потребле́ние, подводи́мый ток
Instantaneous playback, прямо́е воспроизведе́ние за́писи
Intercommunication system ("intercom"), устано́вка вну́тренней свя́зи

Jack, переключа́тель, гнездо́
Jack box, коро́бка переключа́теля

Key ("piano" key), кно́пка, кла́виш, рыча́г, (рычажо́к)
Knob, ру́чка, кно́пка

Language laboratory, лингвисти́ческая лаборато́рия, аудио-лаборато́рия (фoнети́ческая)
Leader tape, ле́нта для запра́вки, нача́льная ле́нта
Length of pause, продолжи́тельность па́узы
Library, библиоте́ка
(audio library), звукоза́писей
(record library), пласти́нок
(tape library), магни́тных лент
Listening installation, устано́вка для прослу́шивания
"Live" ("live" program), непосре́дственная звукоза́пись
Loudspeaker, громкоговори́тель, репроду́ктор

Magnetic, магни́тный
Maintenance, содержа́ние в поря́дке
Master lesson, по́длинник уро́ка
Master tape, оригина́л
Materials, материа́л
Microphone, микрофо́н
Mimeographed sheets, печа́тные экземпля́ры
Mixer, смеси́тель
Model sentence, образцо́вое предложе́ние
Monaural, монаура́льный, одноу́хий
Monitor (to), прослу́шивать, прослу́шать
Monitoring (individual or group), контро́льное прослу́шивание (гру́ппы и́ли одного́ челове́ка)
Multiple-track, многодоро́жечный
Mylar, муля́ровая ле́нта (полисте́ровая)

Native speaker (informant), говоря́щий на родно́м языке́, осведоми́тель

Needle (a), игла́
Noise, шум, поме́ха

Ohm, ом
Opaque projector, непрозра́чный, проже́ктор
Operation (functioning), функциони́рование, опери́рование
Outlet (electrical outlet), ште́псель, ште́псельная розе́тка
Output, вы́ход, выхо́дной сигна́л громкоговори́теля, производи́тельность, вы́работка
Oxide, окси́д, о́кись

Patch cord, переключа́тельный шнур
Pause (the), (blank space), па́уза
Pause for repetition, па́уза для повторе́ния
Pause lever, рыча́г для па́узы
"Pickup" (arm of a phonograph), тона́рм
Pilot light (amber, green, red, white), контро́льная ла́мпа (янта́рная, зелёная, кра́сная, бе́лая)
Play (to play a recording), прои́грывать, проигра́ть (пласти́нку)
Playback, прои́грывать, прои́грывание
Playing time, вре́мя прои́грывания
Plug (a), ви́лка
Portable, портати́вный
Power, си́ла, эне́ргия, электроэне́ргия, ток
Power cord, шнур пита́ния, про́вод
Practice (the), пра́ктика, упражне́ние
Practice (to), практикова́ться, упражня́ться
Preamplifier, предвари́тельный усили́тель
Prerecorded, ле́нта с за́писью, наговорённая ле́нта
Program (a), програ́мма

Projector, проже́ктор
  (film strip), диафильмпроже́ктор
  (movie, silent), немо́й кинопроже́ктор
  (movie, sound), звуково́й кинопроже́ктор
  (slide), диапроже́ктор
Public address system, звукоусили́тельное устро́йство (систе́ма), устано́вка (звукофика́ции), мегафо́нная устано́вка
Pushbutton, кно́пка

Radio (a), ра́дио
  (radio broadcast), радиовеща́тельная програ́мма "переда́ча"
  (to broadcast, to send out a program), передава́ть, переда́ть по ра́дио
Record (a), грампласти́нка
Record (to), запи́сывать, записа́ть
  (to record a disk), запи́сывать, записа́ть; нагова́ривать, наговори́ть на диск
  (to record a tape), запи́сывать, записа́ть на ле́нту
Recorder (tape recorder), магнитофо́н
Recording (a), за́пись, звукоза́пись
Recording level, регистри́рующий у́ровень
Reel (a), кату́шка, руло́н ле́нты
  (supply reel), намо́танная кату́шка, подаю́щая кассе́та
  (tape-up reel), пуста́я кату́шка, приёмная кассе́та
Remote control, управле́ние на расстоя́нии
Repair (a), почи́нка
Repair (to), починя́ть, чини́ть
Repair service, отде́л теку́щего ремо́нта, обслу́живание
Replaceable, заменя́емый, замени́мый
Review (a), повторе́ние, просмо́тр
Review (to), повторя́ть, повтори́ть; просма́тривать, просмо́треть
Review lesson, уро́к повторе́ния, повтори́тельный уро́к
Rewind (to), перема́тывать, перемота́ть

Screen (a), экра́н
Selector switch, переключа́тель, селе́ктор
Signal-to-noise ratio, сигнализи́ровать отноше́ние си́лы сигна́ла к поме́хам
Single-track, ордина́рные
Slide (film), диапозити́в, фотодиапозити́в
Sound (the), звук (звуча́ние)
Soundproofing, звукопоглоще́ние
Soundtrack (film), фонogра́мма, звукова́я доро́жка
Spare parts, запасны́е ча́сти
Speed (tape speed), ско́рость
Spillage (tape spillage), выбега́ние ле́нты
Splice (a), ме́сто соедине́ния (сраще́ние), скле́йка
Splice (to), соединя́ть, соедини́ть; сращивать, срасти́ть; скле́ивать, скле́ить
Splicer (tape splicer), стано́к (прибо́р) для скле́ивания (почи́нки) ле́нты
Start (to), нача́ть, начина́ть
Stop (to), останови́ть, остана́вливать
Student position, обору́дованное ме́сто студе́нта
Student's answer, отве́т студе́нта
Studio (recording studio), сту́дия (звукоза́писей)
Supervise, руководи́ть
Supervision, руково́дство
Supervisor, руководи́тель
Switch (a), переключа́тель, выключа́тель
Switch panel, распредели́тельная доска́
System, систе́ма

Talk (to), говори́ть, поговори́ть, сказа́ть
Tangled, запу́танный
Tape (blank), чи́стая ле́нта
  (magnetic), магни́тная ле́нта
Tape drive mechanism, приводно́й механи́зм
Tape transport, протя́гивание ле́нты
Teacher console, контро́льный пульт
Technician, специали́ст (те́хник)
Television, телеви́зия, телеви́дение
Television set, телеви́зор
Text, текст
Thread (to thread a tape machine), поста́вить, ста́вить (ле́нту на маши́ну)
Transformer, трансформа́тор
Transistor, полупроводни́к
Tube (vacuum), ва́куумная ла́мпа, электро́нная ла́мпа
Turn off (to), выключа́ть, вы́ключить
Turn on (to), включа́ть, включи́ть

Turntable, **поворо́тная платфо́рма (верту́шка)**

Untangle, **распу́тывать, распу́тать**

Unwind, **разма́тывать размота́ть**

Use (to use a machine), **по́льзоваться (маши́ной)**

Visual aids, **нагля́дные посо́бия**

Voltage regulator, **регуля́тор напряже́ния**

Volume, **си́ла зву́ка, гро́мкости, объём зву́ка**

(to turn down the volume), **понижа́ть, пони́зить звук; уменьша́ть, уменьши́ть звук**

(to turn up the volume), **уси́ливать, уси́лить звук; увели́чивать, увели́чить звук**

Volume control, **указа́тель (регулиро́вка) гро́мкости, регулиро́вка у́ровня зву́ка, усили́тель зву́ка**

Volume indicator, **указа́тель гро́мкости**

Wind (to wind tape), **нама́тывать, намота́ть**

Wire (a), **про́вод**

Wiring, **прово́дка, прокла́дка проводо́в**

Wow, **пла́вание зву́[illegible].**

SPANISH

Instructional procedures

Answer! **Conteste usted. Conteste.***

Answer the following questions in Spanish. **Conteste las siguientes preguntas en español.**

Compare your *answer* with that of the master tape. **Compare su respuesta con la de la cinta maestra.**

Begin! **Empiece usted.**

Please sit in *booth* number two in the third row. **Por favor, siéntese en la casilla número dos de la tercera fila.**

Close your book. **Cierre el libro.**

Close your eyes. **Cierre los ojos.**

Compare your pronunciation with that of the master tape. **Compare su pronunciación con la de la cinta maestra.**

Correct your errors, **Corrija sus faltas.**

Correct yourself. **Corríjase a sí mismo.**

Follow the directions. **Obedezca las instrucciones (indicaciones).**

You will *hear* each sentence once (twice), followed by a pause. **Usted oirá cada frase una vez (dos veces), seguida por una pausa.**

You will then *hear* a review lesson. **Usted oirá luego una lección de repaso.**

You will then *hear* the correct answer. **Usted oirá luego la respuesta correcta.**

Imitate what you hear. **Imite lo que oiga.**

Listen carefully. **Escuche cuidadosamente.**

Listen to the directions. **Escuche las instrucciones (indicaciones).**

Listen only. **Escuche solamente.**

Listen to the recording (master lesson). **Escuche la grabación (lección maestra).**

Listen to what you have just recorded. **Escuche lo que acaba de grabar.**

Listen to what you have recorded. **Escuche lo que ha grabado.**

Continue *listening*. **Continúe (siga) escuchando.**

You must not *look* at the text now. **No debe mirar (consultar) el texto ahora.**

Look at the screen. **Mire la pantalla.**

Now *look* at the mimeographed sheet. **Ahora vea (consulte) la hoja mimeografiada.**

You must *memorize* the entire dialog. **Debe aprender de memoria el diálogo entero.**

Open your book. **Abra su libro.**

Play back (replay) the last sentence. **Vuelva a tocar (repetir) la última frase.**

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*It is not necessary to keep repeating usted in a series of instructions. Courtesy requires that the pronoun be used from time to time.

Ready! **Listo.**

Raise your hand if you need help. **Levante la mano si necesita ayuda.**

Begin to *record* now. **Empiece a grabar ahora.**

Record your answer during the pause that follows the question. **Grabe su respuesta durante la pausa que sigue a la pregunta.**

Continue *recording.* **Continúe (siga) grabando.**

I shall *repeat* some questions (expressions) twice quickly. **Repetiré rapidamente dos veces algunas preguntas (expresiones).**

Repeat! **Repita.**

Repeat again (one more time). **Repita otra vez.**

Repeat during the pause. **Repita durante la pausa.**

Repeat the answer in the pause. **Repita la respuesta durante la pausa.**

Reply without hesitation. **Conteste sin vacilar.**

Speak faster (more slowly). **Hable más rápido (más despacio).**

Speak in a natural voice. **Hable en voz natural.**

Write in Spanish. **Escriba en español.**

Equipment procedures

Don't force the *control* button. **No fuerce el botón de control.**

Set your *counter* at zero. **Ponga su indicador a cero.**

Hang up your *headphones.* **Cuelgue los auriculares.**

Put on your *headphones.* **Póngase los auriculares.**

Put them away (your *headphones*). **Guárdelos.**

Take off your *headphones.* **Quítese los auriculares.**

Do you *hear* me? **¿Me oye? ¿Puede oirme?**

The *laboratory* will be open for individual use at 3:30 p.m. **El laboratorio estará abierto a las tres y media para práctica individual.**

Be sure the *light* is on. **Asegúrese de que la luz esté encendida.**

My *machine* does not work. **Mi máquina no funciona.**

Start your *machine.* **Ponga en marcha su máquina. Haga arrancar su máquina.**

Stop your *machine.* **Pare su máquina.**

Turn off your *machine.* **Apague su máquina (su aparato).**

Turn on your *machine.* **Encienda (ponga en marcha) su máquina (su aparato).**

Bring the *microphone* closer to you. **Acerque más el micrófono hacia usted.**

Get closer to the *microphone.* **Acérquese más al micrófono.**

Move the *microphone* away from you. **Aleje más el micrófono.**

Put down the front *partition.* **Baje la tabla frontal (la separación frontal) de su casilla.**

Press the key down. **Apriete la tecla hacia abajo.**

Turn your *program selector* to number five. **Mueva su selector de programa al número cinco. Sintonice el canal cinco.**

Push the button. **Apriete el botón.**

Push the switch to the right (to the left, away from you, toward you). **Empuje el interruptor hacia la derecha (hacia la izquierda, hacia adelante, hacia usted).**

Be sure the *reels* are turning. **Asegúrese de que estén girando los carretes.**

Rewind your tape. **Vuelva a enrollar la cinta. Rebobine la cinta.**

Is the *sound* clear? **¿Se oye claramente?**

Don't *speak* so loudly. **No hable en voz tan alta.**

Speak more loudly (more softly). **Hable en voz más alta (más baja).**

I'm sorry. You have the wrong *tape.* **Lo siento. Se ha equivocado de cinta.**

Adjust the *volume.* **Ajuste el volumen (la intensidad).**

Turn it down (the *volume*). **Bájelo.**

Turn it up louder (the *volume*). Auméntelo.
Turn the *volume control* to the right (to the left). Mueva el control de volumen (de intensidad) hacia la derecha (hacia la izquierda).

Terminology

Adjustment, un ajuste, un arreglo
A.c. (alternating current), c.a. (la corriente alterna)
Amplification, la amplificación
Amplifier, un amplificador
  (voltage amplifier), un amplificador de tensión
  (power amplifier), un amplificador de potencia
Attenuation, la amortiguación
Audio, audio
Audiovisual, audio-visual

Booth, una cabina, una casilla
Brakes (the), los frenos
Break (tape break), un corte, una ruptura

Cable, un cable, un conductor (shielded cable), un cable blindado
Capstan, un guía
Cartridge (tape cartridge or magazine), un carrete, un cartucho
Channel (a), un canal, una vía
Circuit (a), un circuito
Compare, comparar
Conduit, una canalización, un conducto, un tubo de comunicación, un tubo protector, un tubo para paso de cables eléctricos
Console (a), una consola (de control)
Correct (to), corregir
Cross-talk, conversación cruzada (lateral)
Crystal, cristal
Cycle, un ciclo, un período
Cps (cycles per second), ciclos por segundo (cps)

Decibel (db), un decibelio, un decibel
Delayed, retrasado. atrasado, demorado
Dialog, un diálogo
Dictation, un dictado
Directions, instrucciones (f), indicaciones (f)
Disk, un disco
Distortion, la distorsión, la desviación (campo magnético), la desformación
Drill (a), un ejercicio, una práctica
Drill (to), practicar (los ejercicios)
Drill exercise, ejercicio de práctica
Drill tape (a), una cinta de ejercicios
Dual-channel tape, una cinta de doble canal (de dos canales)
Dual-track (two-track), de vías dobles, de doble canal
Dubbed film, una película grabada en otra lengua
Dubbing (the), el doblaje o la sincronización, la transposición de una grabación a otra
Dynamic, dinámico

Earphones (headphones), los auriculares, los audífonos
Edit (to), editar, redactar, montar (una película de cine)
Editing (the), la redacción
Electrical, eléctrico
Electronic, electrónico
End of tape, el fin de la cinta
Equipment, el equipo
Erase, borrar
Eraser (bulk), un borrador de cinta magnética
Eraser (tape eraser), un borrador de cinta, un borrador magnético
Error, un error, una falta, una equivocación

Fast forward, la velocidad rápida hacia adelante, el giro rápido hacia adelante
Feedback, la retroalimentación
Fidelity, la fidelidad
Film (a), una película
Film strip, una tira de película fija, un rollo de película
Frequency response, la respuesta de frecuencias, la respuesta a las frecuencias
Front partition of booth, la tabla frontal de la casilla, la separación frontal de la casilla

Gooseneck microphone, un micrófono flexible, un micrófono con base de cuello de cisne
Grammar pattern, un ejemplo gramatical, un modelo gramatical

Heads, las cabezas
(erasing head), una cabeza borradora
(magnetic recording head), una cabeza de grabación magnética
Hum, el zumbido (la interferencia)

Impedance, la impedancia
Ips (inches per second), pulgadas por segundo
Input, la entrada
Instantaneous playback, la audición instantánea
Intercommunication system ("intercom"), el intercomunicador, el sistema de intercomunicación

Jack, un jack para teléfono, un tomacorriente, un jack
Jack box, una caja jack para teléfono

Key ("piano" key), una tecla, una llave
Knob, un selector, una perilla, un botón

Language laboratory, el laboratorio de idiomas, el laboratorio lingüístico
Leader tape (a), una cinta directriz, una cinta matriz
Length of pause, la duración de la pausa
Library, biblioteca
(audio library), una audioteca
(record library), una discoteca
(tape library), una colección de cintas, una cintoteca
Line (the), la red
(line voltage), el voltage de red
Listening installation, una instalación de audio, un sistema de audición
"Live" ("live" recording), una grabación directa, un registro directo
Loudspeaker, un altoparlante, un altavoz

Magnetic, magnético (cuerpo magnético)
Maintenance, el mantenimiento, la conservación
Master lesson, la lección principal, la lección maestra, la lección matriz
Master tape, una cinta maestra, una cinta matriz
Materials, los materiales
Microphone, un micrófono
Mimeographed sheet, la hoja mimeografeada
Mixer, un mezclador (cine), una válvula mezcladora (radio), un modulador
Model sentence, la frase modelo
Monaural, monoauricular (de un audífono) (acústico)
Montior (to), supervisar, controlar, inspeccionar, audioinspeccionar, vigilar
Monitoring (individual or group), la supervisión, la dirección (individual o por grupo)

Native speaker (informant), un oriundo, una persona de habla española (persona que habla su lenguaje de nacimiento por fines de demonstración)
Needle (a), una aguja
Noise, el ruido, el ruido de fondo (background noise)

Ohm, el ohmio, el ohm
Opaque projector, un proyector opaco, un epidiáscopio
Operation (functioning), la operación (el funcionamiento)
Outlet (electrical outlet), un tomacorriente, una salida, un enchufe
Output, la salida
Oxide, el óxido
(oxide coating), la capa de óxido

Patch cord, un cordón de extensión y empalme
Pause (the), (the blank space), la pausa, el espacio, el blanco
Pause for repetition, la pausa para repetición
Pause lever, un interruptor, una llave (una manigüeta) de paro momentáneo
"Pickup" (arm of a phonograph), el brazo (reproductor), el fonocaptor, la unidad (slang)
Pilot light (amber, green, red, white), la luz piloto (ámbar, verde, roja, blanca)
Play (to play a recording), tocar (una grabación), pasar una cinta
Playback, la repetición, la audición
Playing time, la duración de una reproducción, la duración del disco, la duración de la cinta
Plug (a), un enchufe, una ficha
Portable, portátil

- Power, la corriente, la fuerza, la potencia
- Power cord, un cordón eléctrico, un cable, un alambre con corriente
- Practice (the), la práctica, el ejercicio
- Practice (to), practicar, ensayar, repasar
- Preamplifier, un preamplificador
- Prerecorded, grabado de antemano
- Program (a), un programa
- Projector, un proyector
- Prong, la pata
  - (four-pronged plug), una clavija de cuatro patas
- Public address system, un sistema de difusión pública
- Pushbutton, un botón de contacto, un botón de presión

- Radio (a), un radio, un aparato de radio
  - (radio broadcast), una emisión radiofónica, una radiodifusión, una transmisión del radio
  - (to broadcast, to send out a program), transmitir, radiodifundir
- Record (a), un disco
- Record (to), grabar
  - (to record a disk), grabar un disco
  - (to record a tape), grabar una cinta
- Recorder (tape recorder), una grabadora de cinta, un magnetófono
- Recording (a), una grabación
- Recording level, el nivel de la grabación
- Reel (a), un carrete
  - (supply reel), el carrete alimentador, el carrete distribuidor
  - (tak-up reel), el carrete recibidor
- Remote control, el control remoto, la teleregulación, el telemando
- Repair (a), una reparación, un arreglo, una compostura
- Repair (to), reparar, componer
- Repair service, el servicio de reparaciones
- Replaceable, reemplazable, substituible
- Review (a), un repaso, una revisión
- Review (to), repasar, revisar
- Review lesson, una lección de repaso
- Rewind (to), rebobinar, devolver

- Screen (a), una pantalla
- Selector switch, un switch selector, un interruptor de selección, un botón de selección
- Short-wave, de onda corta
- Signal-to-noise ratio, la razón de señal-ruido
- Single-track, de una sola banda de sonido
- Slides (colored film), las diapositivas, las instantáneas para un proyector
- Sound (the), el sonido
- Soundtrack (film), banda sonora
- Spare part, un repuesto, una parte de repuesto
- Speed (tape speed), la velocidad
- Spillage (tape spillage), el derrame
- Splice (a), un empalme, un remiendo
- Splice (to), empalmar, enmendar, remendar, unir
- Splicer (tape splicer), un empalmador de cinta magnética
- Start (to), poner en marcha, arrancar (hacer arrancar)
- Student position (a 20-position lab), el puesto del estudiante (un laboratorio de veinte puestos para estudiantes)
- Student's answer, la respuesta del estudiante
- Studio (recording studio), un estudio de grabación
- Supervise (to), dirigir
- Supervision (the), la supervisión, la dirección
- Supervisor, un supervisor, un director
- Switch (a), un interruptor, un conmutador
- Switch panel, un panel de switch, una pizarra de interruptores

- Talk (to), hablar
- Tangled, enredado
- Tape (blank), una cinta en blanco, una cinta limpia o virgen
  - (magnetic), una cinta magnética
- Tape deck, una mesa de grabadoras
- Tape drive mechanism, el mecanismo que hace pasar la cinta
- Tape transport, una transportacinta
- Teacher console, una consola de control (del instructor), una pizarra de control, una tabla de control
- Technician, un técnico
- Television, la televisión
- Television set, un aparato de televisión
- Text, un texto

Thread (to thread a tape machine), ensartar, colocar, enrollar, pasar
Tone (the), el tono
Tone control, el control de tono
Transformer, un transformador
Transistor, un transistor
Tube (vacuum), un tubo al vacío, una lámpara de vacío
Turntable, un disco giratorio, un tocadiscos, un plato

Untangle, desenredar
Unwind, desenrollar
Use (to use a machine), usar, emplear

Voltage regulator, un regulador de voltaje (de tensión)
Volume, el volumen, la intensidad
(to turn down the volume), disminuir (bajar) el volumen (la intensidad)
(to turn up the volume), aumentar (subir) el volumen (la intensidad)
Volume control, el control de volumen (intensidad)
Volume indicator, el medidor de volumen (de intensidad), el medidor audiofrecuencia o decibelímetro

Watt, el vatio
Wind (wind tape), enrollar, bobinar
Wire (a), un cable, un alambre, un cordón
Wiring, la instalación (de alambres), el sistema de cables o montaje, el conexionado
Wow, los ruidos, los lloriqueos, los chillidos, el pito, la variación de velocidad

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